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This circular will be sent regularly to all who apply for it.

United States Department of Agriculture,

Washington, D. C. January 31, 1921.

MONTHLY LIST OF PUBLICATIONS.

[JANUARY, 1921.]

READ CAREFULLY BEFORE ORDERING

Send no remittances to the U.S. Department of Agriculture.

A copy of any of the publications listed herein, except those otherwise noted, may be obtained free upon application to the Chief of the Division of Publications, United States Department of Agriculture, Washington, D. C., as long as the department's supply lasts.

After this department's supply is exhausted, publications can still be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., but by purchase only, and at the prices noted herein.

Send all remittances to the Superintendent of Documents direct. His office is not a part of the Department of Agriculture.

FARMERS' BULLETINS-FOR FREE DISTRIBUTION.

NOTE.—As long as the department's somewhat limited supply of the current numbers of Farmers' Bulletins lasts they may be obtained by all applicants free of charge. They are also for sale at 5 cents per copy unless otherwise noted.

Cranberry Diseases and their Control. By C. L. Shear, Pathologist, Fruit-Disease Investigations. Pp. 22, figs. 12. Contribution from the Bureau of Plant Industry. December, 1920. (Farmers' Bulletin 1081.)

This bulletin discusses the various diseases of the cranberry and shows how the principal fungous diseases can be prevented by spraying with Bordeaux mixture. Intended for use of cranberry growers.

Growing and Planting Hardwood Seedlings on the Farm. By C. R. Tillotson, Forest Examiner. Pp. 29, figs. 15. Contribution from the Forest Service. January, 1921. (Farmers' Bulletin 1123.)

It is the purpose of this bulletin to point out simple methods which may be followed in planting and caring for hardwood trees on the farm and in collecting, extracting, and storing the seed of the common hardwood trees of the United States and in growing the young trees in a home garden or nursery.

Baking in the Home. By Hannah L. Wessling, Assistant in Home Demonstration Work, Office of Extension Work South. Pp. 40, figs. 8. Contribution from the States Relations Service, December, 1920. (Farmers' Bulletin 1136.)

Contains recipes and directions for making breads and other articles of other substances as well as of wheat. Suitable for general distribution.

Fermented Pickles. By Edwin Le Fevre, Scientific Assistant, Microbiological Laboratory. Pp. 23. Contribution from the Bureau of Chemistry. December, 1920. (Farmers' Bulletin 1159.)

This bulletin contains a brief description of the processes involved in pickling, and gives the method by which it is believed that the standard varieties of pickles can be prepared successfully in the home. 31741°-21



Dodder. By Albert A. Hansen, Agronomist, Weed Investigations, Office of Forage-Crop Investigations. Pp. 21, figs. 10. Contribution from the Bureau of Plant Industry. January, 1921. (Farmers' Bulletin 1161.)

Discusses the methods of control and eradication of this parasitic plant. Suitable for general distri-

bution.

Plans of Rural Community Buildings. By W. C. Nason, Assistant in Rural Organization, under the Direction of C. J. Galpin, Economist. Pp. 38, figs. 54. Contribution from the Office of Farm Management and Farm Economics. January, 1921. (Farmers' Bulletin 1173.)

This bulletin treats on the community building movement in farm life. Contains illustrations of buildings erected in certain communities, and tells of the advantages and benefits derived therefrom.

Suitable for general distribution.

DEPARTMENT BULLETINS-TECHNICAL.

The publications listed below are technical or scientific bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts.

Economic Value of the Starling in the United States. By E. R. Kalmbach and I. N. Gabrielson, Assistant Biologists. Pp. 66, pls. 4, figs. 3. Contribution from the Bureau of Biological Survey. (Professional Paper.) Jan. 10, 1921. (Department Bulletin 868.) Price, 25 cents.

Discusses the problems raised by the starling together with its food habits and relation to other species of birds and control measures adopted.

The Maine Sardine Industry. By F. C. Weber, Chemist in Charge, with collaboration of H. W. Houghton and J. B. Wilson, Assistant Chemists, Animal Physiological Chemical Laboratory. Pp. 127, pls. 23. Contribution from the Bureau of Chemistry. (Professional Paper.) Jan. 18, 1921. (Department Bulletin 908.) Price, 50 cents.

This bulletin gives a report of the investigations on the canning of sardines on the coast of Maine, with suggestions for improving faulty methods, for the elimination of all unnecessary waste, and for the economical utilization of the necessary wastes.

Utilization of Black Walnut. By Warren D. Brush, Scientific Assistant. Pp. 89, pls. 14, figs. 7, Contributions from the Forest Service. (Professional Paper.) Jan. 17, 1921. (Department Bulletin 909.) Price, 30 cents.

This bulletin discusses the properties of the wood, its supply and demand, and utilization by industries, with an appendix giving a detailed list of its uses.

Substitutes for Sucrose in Curing Meats. By Ralph Hoagland, Senior Biochemist, Biochemic Division. Pp. 28. Contribution from the Bureau of Animal Industry. (Professional Paper.) Jan. 7, 1921. (Department Bulletin 928.) Price, 5 cents.

This bulletin reports experiments of a preliminary nature, made with a view to securing substitutes for cane sugar used in curing meats. Of interest to meat packing establishments.

MISCELLANEOUS.

- Regulations of the Secretary of Agriculture under the United States Warehouse Act of August 11, 1916. Regulations for Tobacco Warehouses. Nov. 15, 1920. (Circular 154, Office of the Secretary.) Price, 5 cents.
- Para and Paspalum Grasses. By Glen Briggs, Agronomist. Pp. 10. Contribution from the States Relations Service. Jan. 19, 1921. (Circular 1, Guma Experiment station.) Price, 5 cents.
- In The Open. The National Forests of Washington. Pp. 78, il., 1 map. Contribution from the Forest Service. 1920. (Department Circular 138.) Price, 20 cents.
- Status and Results of Home Demonstration Work, Northern and Western States, 1919. By Florence E. Ward, In Charge Extension Work With Women. Pp. 25, figs. 7. Contribution from the States Relations Service. January, 1921. (Department Circular 141.) Price, 5 cents.
- The Farm Woman's Problems' By Florence E. Ward, In Charge Extension Work with Women. Pp. 24, figs. 8. Contribution from the States Relations Service. November, 1920. (Department Circular 143.) Price, 5 cents.
- Statistical Data Compiled and Published By the Bureau of Crop Estimates, 1863-1920.

 Pp. 64. Contribution from the Bureau of Crop Estimates. January, 1921.

 (Department Circular 150.) Price, 10 cents.

- How Teachers May Use Farmers' Bulletin 1087, Beautifying the Farmstead. By C. H. Schopmeyer, Assistant in Agricultural Instruction. Pp. 6. Contribution from the States Relations Service. January, 1921. (Department Circular 155.) Price, 5 cents.
- How Teachers May Use Farmers' Bulletin 1121, Factors That Make for Success in Farming in the South. By F. A. Merrill. Pp. 7. Contribution from the States Relations Service. January, 1921. (Department Circular 159.) Price, 5 cents.
- Some Rules for Poisoning the Cotton Boll Weevil. By B. R. Coad and T. P. Cassidy. Pp. 4. Contribution from the Bureau of Entomology. January, 1921. (Department Circular 162.) Price, 5 cents.
- Dispersion of the Boll Weevil in 1920. By B. R. Coad and R. W. Moreland. Pp. 2. Contribution from the Bureau of Entomology. Jan. 2, 1921. (Department Circular 163.) Price, 5 cents.

SERIALS.

- Journal of Agricultural Research. (For sale only.) Vol. 20, No. 3, Nov. 1, 1920. Contents: Composition of Normal and Mottled Citrus Leaves. (vh. Calif.-24.) By W. P. Kelley and A. B. Cummins. Control of the Fluke Diseases by Destruction of the Intermediate Host. (vi. Oreg.-5.) By Asa C. Chandler. Injury to Seed Wheat Resulting from Drying after Disinfection with Formaldehyde. (vj. G.-206.) By Annie May Hurd. Pp. 161-244, pls. 6, figs. 5. Price, 10 cents.
- Same. Vol. 20, No. 4, Nov. 15, 1920. Contents: Studies on the Life History and Habits of the Beet Leafhopper. (vk. K-86.) By C. F. Stahl. Hypertrophied Lenticels on the Roots of Conifers and Their Relation to Moisture and Aeration. (vl. G-207.) By Glenn G. Hahn, Carl Hartley, and Arthur S. Rhoads. Degree of Temperature to Which Soils Can Be Cooled without Freezing. (vm. Mich.-11.) By George Bouyoucos. Changes Taking Place in the Tempering of Wheat. (vn. Kans.-22.) By E. L. Tague. Vascular Discoloration of Irish Potato Tubers. (vo. G-208.) By H. A. Edson. Cornwart of Alfalfa Caused by Urophlyctis Alfalfae. (vp. G-209.) By Fred Ruel Jones and Charles Drechsler. Pathological Anatomy of Potato Blackleg. (vq. G-210.) By Ernst F. Artschwager. Schlerotinia minor, n. sp., the Cause of a Decay of Lettuce, Celery, and Other Crops. (vt. G-211.) By Ivan C. Jagger. Pp. 245-330, pls. 18, figs. 2. Price, 25 cents.
- Same. Vol. 20, No. 6, Dec. 15, 1920. Contents: Carbon Dioxid Content of Brn Air. (vx-N. H.-5.) By Mary F. Hendry and Alice Johnson. Rice Weevil (Calandra), Sitophitus Oryza. (vu-K-87.) By Richard T. Cotton. Opius Fletcheri as a Parasite of the Melon Fly in Hawaii. (wa-K-88.) By H. F. Willard. Tamarind Poder-Borer, Sitophilus Linearis (Herbst). (wb-K-89.) By Richard T. Cotton. Influence of Temperature and Humidity on the Growth of Pseudomonas Citri and Its Host Plants and on Infection and Development of the Disease. (wc-Ala.-7.) By George L. Peltier. Daubentonia Longifolia (Coffee Bean), A Poisonous Plant. (wd-A-54.) By C. Dwight Marsh and A. B. Clawson. Pp. 405-513, pls. 3, figs. 14. Price, 20 cents.

Note.—Volumes 1 to 4 of the Journal of Agricultural Research were published monthly, volumes 5 to 16 weekly, and volume 17 monthly. Beginning with volume 18, the issue is semimonthly. The Journal is distributed free *only* to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. It will not be sent free to individuals. The Superintendent of Documents will receive subscriptions for this publication, the price being \$1.50 per year for domestic circulation and \$2 for foreign circulation.

Experiment Station Record. Vol. 43, No. 9, Abstract Number. Jan. 20, 1921. E. W. Allen, Ph. D., Editor. Pp. 801-900. Price, 15 cents.

Note.—The Record is a technical review of the world's scientific literature pertaining to agriculture. It is not intended for general distribution and its free distribution is restricted to persons connected with the agricultural colleges, experiment stations, and similar institutions, and to libraries and exchanges. It can not be sent free to individuals having no official connection with public institutions. The Superintendent of Documents will receive subscriptions for this publication, which is issued in two volumes a year, 10 numbers each, at \$1 a volume.

The Monthly Crop Reporter. Vol. 7, No. 1, January, 1921. Pp. 1-8. (Bureau of Crop Estimates.) Price, 25 cents a year.

Contains data relating to agriculture, including estimates of acreage, conditions, yields, prices, and value of crops and live stock.

ANNOUNCEMENT.—Because of the small fund available for printing, it has been found necessary to drop from the mailing list of the Monthly Crop Reporter all names of persons who are not actively cooperating with the United States Department of Agriculture. Persons whose names are dropped may subscribe for this publication through the Superintendent of Documents, Washington, D. C., at the domestic rate of 25 cents per year, and 40 cents per year to foreign address, payable only by postal money order or cash. No checks accepted.

The Market Reporter. Vol. 3, Nos. 1-5, inclusive, January, 1921. (Bureau of Markets.) For free distribution to applicants who show the need for it.

The Market Reporter is the official marketing publication of the United States Department of Agriculture. It contains general, current, and statistical marketing information for important classes of agricultural products, both staple and perishable, which is of general interest and of permanent value alike to producers, dealers, and consumers.

Weekly News Letter.

Contains a weekly summary in popular form of the more important practical discoveries and recommendations of all bureaus of the department. Free list confined to departmental employees, official cooperators, and the press. May be purchased from the Superintendent of Documents, Government Printing Office, for 50 cents a year.

SOIL SURVEYS.

All requests for soil surveys are referred to the Bureau of Soils for attention, the distribution of same being controlled by that bureau.

Soil Survey of the Willits Area, California. By Walter C. Dean, of the University of California. Pp. 32, pls. 2, figs. 1, map. (From F. O., Soils, 1918.) Price, 15 cents.

Soil Survey of Pearl River County, Mississippi. By E. Malcolm Jones, of the Mississippi Geological Survey, In Charge, and G. W. Musgrave, of the U. S. Department of Agriculture. Pp. 38, pls. 2, fig. 1, map. (From F. O., Soils, 1918.) Price, 15 cents.

SERVICE AND REGULATORY ANNOUNCEMENTS—FOR SALE ONLY.

These contain only information, instructions, and notices governing the enforcement of the food and drugs act, meat inspection, 28-hour, and quarantine laws, and the various regulations of the department. Issued monthly by certain bureaus. Free distribution is limited to persons in the employ of the department, to public officials whose duties render it necessary for them to have such information, to journals especially concerned, and to manufacturers and firms whose business is affected by same. Others desiring copies are respectfully referred to the Superintendent of Documents, Government Printing Office, who has them for sale only, at prices noted.

Bureau of Chemistry. Supplement 91. (N. J. 8001-8050) Pp. 1-46. Jan. 5, 1921. Price, 10 cents.

Same, Supplement 92. (N. J. 8051-8100) Pp. 47-78. Jan. 4, 1921. Price, 10 cents.

Same, Supplement 93. (N. J. 8101–8150) Pp. 79–110. Jan. 25, 1921. Price, 10 cents.

Same, Supplement 94. (N. J. 8151–8200) Pp. 111–141. Jan. 22, 1921. Price 5 cents.

Same, Supplement 96. (N. J. 8251-8300) Pp. 183-201. Jan. 31, 1921. Price, 5 cents.

Insecticide and Fungicide Board. No. 33. Pp. 751-773. Jan. 5, 1921. Price, 5 cents.

PUBLICATIONS OF THE WEATHER BUREAU.

Publications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

Monthly Weather Review. Vol. 48, No. 10. October, 1920. Dec. 28, 1920. Pp. 565-625, figs. 10, charts, 16. Price, 25 cents a copy, \$2.50 a year. Payable to the Superintendent of Documents.

Special Articles: The law of the geoidal slope and fallacies in dynamic meteorology. By C. L. Meisinger. Economic results of deficient precipitation in California. By A. H. Palmer. The relation of prolonged tropical droughts to sunspots. By W. H. Pickering. An approximate seven-year cycle in terrestrial weather, with solar correlation. By W. H. Clough. Effects of heavy rainfall on Panama Canal slides. By H. G. Cornthwaite.

National Weather and Crop and Snow and Ice Bulletin. Nos. 1, 2, 3, 4, January, 1921, reporting weather and crop conditions throughout the United States. Issued weekly. Price, 25 cents a year.

Note.—This bulletin is furnished free of charge to public and educational institutions, libraries, newspapers, cooperative observers, weather correspondents, and to those who will post or display it for the general benefit of the public. To all others the price is 25 cents per year, payable to the Superintendent of Documents, Government Printing Office, Washington, D. C.

JNO. L. COBBS, Jr., Chief, Division of Publications. Name_ Rural Route or Street No. City or Town....

This circular will be sent regularly to all who apply for it.

United States Department of Agriculture,

Washington, D.C., February 28, 1921.

MONTHLY LIST OF PUBLICATIONS.

[FEBRUARY, 1921.]

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FARMERS' BULLETINS-FOR FREE DISTRIBUTION.

NOTE.—The department's supply of the current numbers of Farmers' Bulletins is ordinarily sufficient to make it possible to send them free to all applicants. They are also for sale at 5 cents per copy,

House Cleaning Made Easier. By Sarah J. MacLeod, Specialist in Household Management, Office of Home Economics. Pp. 31, figs. 6. Contribution from the States Relations Service. January, 1921. (Farmers' Bulletin 1180.)

How to make housecleaning simpler and easier and at the same time get full service from the materials used in the furnishing and care of the house are the problems discussed in this bulletin.

Pork on the Farm. Killing, Curing, and Canning. By F. G. Ashbrook and G. A. Anthony, Animal Husbandry Division, and Franz P. Lund, States Relations Service. Pp. 44, figs. 22. Joint contribution from the Bureau of Animal Industry and States Relations Service. February, 1921. (Farmers' Bulletin 1186.)

This bulletin discusses the details of converting the farm-grown hog into high-class, appetizing, nutritious foods available for use in the fresh, cured or canned state at any season of the year.

DEPARTMENTAL BULLETINS-TECHNICAL.

The publications listed below are technical or scientific treatises or bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts.

Unit Requirements For Producing Market Milk In Vermont. By J. B. Bain, Dairy Husbandman; R. J. Posson, Market Milk Specialist; and Ralph P. Hotis, Assistant Market Milk Specialist, Dairy Division. Pp. 18. Contribution from the Bureau of Animal Industry. Feb. 21, 1921. (Department Bulletin 923.) Price, 5 cents.

The figures reported in this study were obtained from typical farms in a milk section of Vermont. They show the requirements for producing milk in that section and may approximate the requirements in similar sections.

- Tear-Stain of Citrus Fruit. By John R. Winston, Pathologist, Office of Fruit Disease Investigations. Pp. 12, pls. 2. Contribution from the Bureau of Plant Industry. (Professional Paper). Jan. 26, 1921. (Department Bulletin 924.) Price, 5 cents. This bulletin describes the disease and gives the results arrived at by spraying and inoculation experiments.
- A Bachytic Variation in Maize. By J. H. Kempton, Assistant in Crop Acclimatization. Pp. 28, pls. 19, figs. 8. Contribution from the Bureau of Plant Industry. (Professional Paper). Feb. 18, 1921. (Department Bulletin 925.) Price, 20 cents. This bulletin discusses the agricultural advantages of brachysm in maize which seems admirably adapted to meet the unusual requirements of dry land and irrigated regions.

Cottonseed Meal for Horses. By G. A. Bell and J. O. Williams, Animal Husbandry Division. Pp. 10. Contribution from the Bureau of Animal Industry Dec. 17, 1920. (Department Bulletin 929.) Price, 5 cents.

The test reported in this bulletin was conducted to determine to what extent cottonseed meal may be fed to horses with safety.

Corn-Belt Farmers' Experience with Motor Trucks. By H. R. Tolley, Agricultural Engineer, and L. M. Church, Assistant in Farm Accounting. Pp. 34, figs. 3. Contribution from the Bureau of Public Roads. Feb. 25, 1921. (Department Bulletin 931.) Price, 10 cents.

This bulletin summarizes the experience with motor trucks of 831 grain and live-stock farmers in the corn belt who have motor trucks for use on their own farms.

Comparative Spinning Tests of Meade and Sea Island Cotton. By Wm. R. Meadows, Cotton Technologist, and W. G. Blair, Assistant in Cotton Testing. Pp. 5. (Professional Paper). Feb. 21, 1921. (Department Bulletin 946.) Price, 5 cents.

Discusses the results of spinning tests on representative bales of Meade and Sea Island cotton grown during the seasons of 1916–17, 1918–19, and 1919–20, in order to determine the practical spinning value of the Meade cotton in comparison with that of Sea Island cotton.

MISCELLANEOUS.

- Report of the Guam Agricultural Experiment Station, 1919. Pp. 52, pls. 7. Feb. 17, 1921. Price, 10 cents.
- Poultry Keeping In Porto Rico. By H. C. Henricksen, Specialist in Farm Management. Pp. 22, figs. 14. February, 1921. (Circular 19, Porto Rico Experiment Station.) Price, 5 cents.
- Contents and Index to Technical Series No. 16, Papers on Coccidae or Scale Insects. Pp. iv, 117-132. Bureau of Entomology. Feb. 19, 1921. Price, 5 cents.
- Contents and Index to Technical Series No. 17, Contributions toward a Monograph of the Scolytid Beetles. Pp. xiii, 233-247. Bureau of Entomology. Price, 5 cents.
- Contents and Index to Technical Series No. 20, Technical Papers on Miscellaneous Forest Insects. Pp. x, 165-185. Bureau of Entomology. Feb. 12, 1921. Price, 5 cents.
- Australia and New Zealand as Markets for American Fruit. By Samuel B. Moomaw, Special Investigator, and Caroline B. Sherman, Scientific Assistant. Pp. 16. Contribution from the Bureau of Markets. February, 1921. (Department Circular 145.) Price, 5 cents.
- The Work of the Huntley Reclamation Project Experiment Farm in 1919. By Dan Hansen, Farm Superintendent. Pp. 27, figs. 4. Contribution from the Bureau of Plant Industry. January, 1921. (Department Circular 147.) Price, 5 cents.
- Nicotine Sulphate in a Dust Carrier Against Truck-Crop Insects. By Roy E. Campbell, Scientific Assistant, Truck-Crop Insect Investigations. Pp. 15, figs. 5. Contribution from the Bureau of Entomology. Feb. 21, 1921. (Department Circular 154.) Price, 5 cents.
- How Teachers May Use Farmers' Bulletin 1175. Better Seed Corn. By F. A. Merrill, Assistant in Agricultural Education. Pp. 6. Contribution from the States Relation Service. January, 1921. (Department Circular 156.) Price, 5 cents.
- How Teachers May Use Farmers' Bulletin 1148, Cowpeas: Culture and Varieties. By F. A. Merrill, Assistant in Agricultural Education. Pp. 8. Contribution from the States Relations Service. January, 1921. (Department Circular 157.) Price, 5 cents.

- How Teachers May Use Farmers' Bulletin 1125: Forage for the Cotton Belt. By F. A. Merrill, Assistant in Agricultural Education. Pp. 8. Contribution from the States Relations Service. (Department Circular 158.) Price, 5 cents.
- Peppers. Pp. 10, figs. 4. Contribution from the States Relations Service. January, 1921. (Department Circular 160.) Price, 5 cents.
- Cotton Culture in the San Joaquin Valley in California. By Wofford B. Camp, Assistant in Crop Acclimatization and Adaption Investigations. Pp. 22, figs. 11. Contribution from the Bureau of Plant Industry. February, 1921. (Department Circular 164.) Price, 5 cents.
- Pisgah National Game Preserve. Regulations and Information for the Public. Pp. 11. Contribution from the Forest Service. 1921. (Department Circular 161.) Price, 5 cents.

SERIALS.

- Journal of Agricultural Research. (For sale only.) Vol. 20, No. 7, Jan. 3, 1921. Contents: Fusarium-Wilt of Tobacco (we. G-214.) By James Johnson. Sugar Beet Top Silage. (wi. Idaho-4.) By Ray E. Neidig. Nodule Bacteria of Leguminous Plants. (wg. G-215.) By F. Lohnis and Roy Hansen. Correlation and Causation. (wh. A-55.) By Sewall Wright. Measurement of the Amount of Water that Seeds Cause to Become Unfree and Their Water-Soluble Material. (wi. Mich.-12.) By George J. Bouyoucos and M. M. McCool. Pp. 515-593, pls, 7, figs. 17. Price, 20 cents.
- Same. Vol. 20, No. 8, Jan. 15, 1921. Contents: Inheritance of Syndactylism, Black, and Dilution in Swine. (wj. Ill.-10.) By J. A. Detlefsen and W. J. Carmichael. Four Rhynchophora Attacking Corn in Storage. (wk. K-90.) By Richard T. Cotton. Concentration of Potassium in Orthoclase Solutions Not a Measure of Its Availability to Wheat Seedlings. (wm. G-216.) By J. F. Breazeale and Lyman J. Briggs. Composition of Tubers, Skins, and Sprouts of Three Varieties of Potatoes.)wu. E-15.) By F. C. Cook. Further Studies in the Deterioration of Sugars in Storage. (wo. La. 3.) By Nicholas Kopeloff H. Z. E. Perkins, and C. J. Welcome. Freezing of Fruit Buds. (wp. Utah-12.) By Frank L. West and N. E. Edlefsen. Pp. 595-667, pls. 6, figs. 5. Price, 20 cents.
- Same. Contents and Index to Volume 18. Pp. xx, 607-618. February, 1921. Price, 5 cents.

None.—Volumes 1 to 4 of the Journal of Agricultural Research were published monthly, volumes 5 to 16 weekly, and volume 17 monthly. Beginning with volume 18, the issue is semimentally. The Journal is distributed free only to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. It will not be sent free to individuals. The Superintendent of Documents will receive subscriptions for this publication, the price being \$1.50 per year for domestic circulation and \$2 for foreign circulation.

Experiment Station Record. Vol. 44. No. 1, January, 1921. E. W. Allen, Ph. D., Editor. Pp. 1-100. Price, 15 cents.

Same. Vol. 44, No. 2. February, 1921. Pp. 101-200. Price, 15 cents.

Note.—The Record is a technical review of the world's scientific literature pertaining to agriculture. It is not intended for general distribution and its free distribution is restricted to persons connected with the agricultural colleges, experiment stations, and similar institutions, and to libraries and exchanges. It can not be sent free to individuals having no official connection with public institutions. The Superintendent of Documents will receive subscriptions for this publication, which is issued in two volumes a year, 10 numbers each, at \$1 a volume.

The Monthly Crop Reporter. Vol. 7, No. 2, February, 1921. Pp. 9-24. (Bureau of Crop Estimates.) Price, 25 cents a year.

Contains data relating to agriculture, including estimates of acreage, conditions, yield, prices, and value of crops and live stock.

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The Market Reporter. Vol. 3, Nos. 6-9, inclusive, February, 1921. (Bureau of Markets.) For free distribution to applicants who show the need for it.

The Market Reporter is the official marketing publication of the United States Department of Agriculture. It contains general, current, and statistical marketing information for important classes of agricultural products, both staple and perishable, which is of general interest and of permanent value alike to producers, dealers, and consumers.

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Contains a weekly summary in popular form of the more important practical discoveries and recommendations of all bureaus of the department. Free list confined to departmental employees, official cooperators, and the press. May be purchased from the Superintendent of Documents, Government Printing Office, for 50 cents a year.

SOIL SURVEYS.

All requests for soil surveys are referred to the Bureau of Soils for attention, the distribution of same being controlled by that bureau.

Soil Survey of the Millville Area, New Jersey. By C. C. Engle, L. L. Lee, and H. A. Miller, of the Department of Conservation and Development of New Jersey, and Austin L. Patrick, J. M. Snyder, and Howard C. Smith, of the U. S. Department of Agriculture. Pp. 46, pls. 8, figs. 2. 1 map. (From F. O. Soils, 1917.) Price, 15 cents.

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These contain only information, instructions, and notices governing the enforcement of the food and drugs act, meat inspection, 28-hour, and quarantine laws, and the various regulations of the department. Issued monthly by certain bureaus. Free distribution is limited to persons in the employ of the department, to public officials whose duties render it necessary for them to have such information, to journals especially concerned, and to manufacturers and firms whose business is affected by same. Others desiring copies are respectfully referred to the Superintendent of Documents, Government Printing Offlice, who has them for sale only, at prices noted.

Bureau of Animal Industry. No. 164. Pp. 139-148. Feb. 14, 1921. Price, 5 cents.

Same. No. 165, January, 1921. Pp. 1-16. Feb. 25, 1921. Price, 5 cents.

Bureau of Chemistry. Supplement 95. (N. J. 8201-8250) Pp. 143-181. Feb. 3, 1921. Price, 10 cents.

Same. Supplément 97. (N. J. 8301-8350) Pp. 203-224. Feb. 21, 1921. Price, 10 cents.

Same. Supplement 98. (N. J. 8351-8400) Pp. 227-266. Feb. 19, 1921. Price, 10 cents.

PUBLICATIONS OF THE WEATHER BUREAU.

Publications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

Monthly Weather Review. Vol. 48, No. 11. November, 1920. Jan. 21, 1921. Pp. 627-685, figs. 20, charts 16. Price 25 cents a copy, \$2.50 a year. Payable to the Superintendent of Documents.

Special Articles: Flying weather in the Southern Plains States. By J. A. Reihle. Surface winds and lower clouds. By F. E. Hartwell. The cooling of the soil at night, with special reference to late spring frosts. By T. B. Franklin. Problems on the relation between weather and crops. By L. D. Vaughan. Influence of cold in stimulating the growth of plants. By F. V. Coville. Monthly variation of the precipitation, altitude relation in the central Sierra Nevada of California. By B. M. Varney. Flood crests on the Ohio and Mississippi, and their movement. By A. J. Henry. Rules for forecasting the crest stages at Vicksburg, Miss., based upon the stages at Cairo, Ill. By H. W. Smith. Typhoon in the Philippines. By J. Coronas.

National Weather and Crop and Snow and Ice Bulletin. Nos. 5, 6, 7, 8, February, 1921, reporting weather and crop conditions throughout the United States. Issued weekly. Price, 25 cents a year.

Note.—This bulletin is furnished free of charge to public and educational institutions, libraries, newspapers, cooperative observers, weather correspondents, and to those who will post or display it for the general benefit of the public. To all others the price is 25 cents per year, payable to the Superintendent of Documents, Government Printing Office, Washington, D. C.

NOT AVAILABLE FOR FREE DISTRIBUTION.

The department's supply of the publications listed below is exhausted. Requests for them, together with the remittance, should be sent to the Superintendent of Documents, Government Printing Office.

An Agricultural Almanac for 1921. Compiled by Bristow Adams. Pp. 64, il. February, 1921. (Farmers' Bulletin 1202.) Price, 10 cents.

The Department has none in stock. It can be only secured by purchase.

JNO. L. COBBS, Jr. Chief, Division of Publications.

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United States Department of Agriculture, MONTHLY LIST OF PUBLICATIONS.

[MARCH, 1921.]

READ CAREFULLY BEFORE ORDERING.

Send no remittances to the U.S. Department of Agriculture.

A copy of any of the publications listed herein, except those otherwise noted, may be obtained free upon application to the Chief of the Division of Publications, United States Department of Agriculture, Washington, D. C., as long as the department's supply lasts.

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D. C., but by purchase only, and at the prices noted herein.

Send all remittances to the Superintendent of Documents direct. His office is not a part of the Department of Agriculture.

FARMERS' BULLETINS—FOR FREE DISTRIBUTION.

NOTE.—As long as the department's somewhat limited supply of the current numbers of Farmers' Bulletins lasts they may be obtained by all applicants free of charge. They are also for sale at 5 cents per copy unless otherwise noted.

Diseases of Sheep. By Bernard A. Gallagher, Pathological Division. Pp. 39, figs. 6. Contribution from the Bureau of Animal Industry. March, 1921. (Farmers' Bulletin 1155.)

This bulletin aims at giving only the more important or characteristic symptoms of infectious and noninfectious diseases, which would be of value in distinguishing one from another, and outlines methods of treatment with regard to the ease of application and use of remedies which are effective and easily procured. It does not deal with diseases caused by animal parasites nor plant poisoning. Of interest to sheep owners generally.

Growing Annual Flowering Plants. By L. C. Corbett, Horticulturalist in Charge, and F. L. Mulford, Horticulturist, Horticultural and Pomological Investigations. Pp. 83, figs. 66. Contribution from the Bureau of Plant Industry. February, 1921. (Farmers' Bulletin 1171.) Price, 15 cents.

Suitable for general distribution.

Raising Sheep on Temporary Pastures. By F. R. Marshall and C. G. Potts, Animal Husbandry Division. Pp. 18, figs. 7. Contribution from the Bureau of Animal Industry. March, 1921. (Farmers' Bulletin 1181.)

Of interest to sheep owners.

The Southern Pine Beetle, A Menace to the Pine Timber of the Southern States. By A. D. Hopkins, Forest Entomologist, in Charge of Forest Insect Investigations. Pp. 15, figs. 4. Contribution from the Bureau of Entomology. March, 1921. (Farmers' Bulletin 1188.)

This bulletin discusses the extent of losses sustained through the depredations of this insect, and contains essential details in methods of control.

- Handling Spinach for Long-Distance Shipment. By V. W. Ridley, Investigator in Marketing Fruits and Vegetables. Pp. 15, figs. 9. Contribution from the Bureau of Markets. February, 1921. (Farmers' Bulletin 1189.)
 - Of interest to growers and shippers of this product.
- How to Grow an Acre of Potatoes. By William Stuart, Horticulturist, Office of Horticultural and Pomological Investigations. Pp. 28, figs. 14. Contribution from the Bureau of Plant Industry. March, 1921. (Farmers' Bulletin 1190.)

 Suitable for general distribution.
- The Beet Leaf Beetle and Its Control. By F. H. Chittenden, Entomologist in Charge, Truck-Crop Insect Investigations. Pp. 8, figs. 8. Contribution from the Bureau of Entomology. March, 1921. (Farmers' Bulletin 1193.)

Of interest to the sugar-beet industry of the Rocky Mountain States and to growers of all kinds of table beets and spinach.

Operating A Home Heating Plant. By A. M. Daniels, Assistant Mechanical Engineer, Division of Agricultural Engineering. Pp. 28, figs. 8. Contribution from the Bureau of Public Roads. March, 1921. (Farmers' Bulletin 1194.)

In this bulletin the requirements that should be met in order to heat the home satisfactorily are discussed and advice is given concerning the selection, installation, and operation of home-heating plants.

DEPARTMENT BULLETINS—TECHNICAL.

The publications listed below are technical or scientific bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts.

The Use of Concrete Pipe in Irrigation. By F. W. Stanley, Senior Irrigation Engineer, with introductory paragraphs by Samuel Fortier, Chief of Irrigation Division. Pp. 54, figs. 36. Contribution from the Bureau of Public Roads. Mar. 23, 1921. (Department Bulletin 906.) Price, 20 cents.

The purpose of this bulletin is to present to the irrigation farmers of the West information concerning pipe and pipe systems and more especially the use of concrete pipe in irrigation

- Farm Practice in Growing Field Crops in Three Sugar-Beet Districts of Colorado. By Samuel B. Nuckols, Agriculturist, Office of Sugar-Plant Investigations, and Thomas H. Summers, formerly Scientific Assistant, Office of Farm Management and Farm Economics. Pp. 52, figs. 41. Joint contribution from the Bureau of Plant Industry, and the Office of Farm Management and Farm Economics, Mar. 11, 1921. (Department Bulletin 917.) Price, 20 cents.
- Black Walnut, Its Growth and Management. By F. S. Baker, Forest Examiner. Pp. 43, pls. 7, figs. 4. Contribution from the Forest Service. (Professional Paper.) Mar. 8, 1921. (Department Bulletin 933.) Price, 20 cents.

This bulletin treats of the importance of the black walnut, its distribution and supply, and describes methods of planting and establishing walnut plantations.

The Distribution of Northwestern Boxed Apples. By C. W. Kitchen, Specialist in Market News, Fruits, and Vegetables; E. M. Seifert, jr., Assistant in Market Surveys, and Mary B. Hall, clerk. Pp. 27, figs. 11. Contribution from the Bureau of Markets. Mar. 14, 1921. (Department Bulletin 935.) Price, 15 cents.

Of interest to commercial growers and shippers of fruit.

MISCELLANEOUS.

- Developing An American Utility Horse. Pp. 22, figs. 17. Contribution from the Bureau of Animal Industry. March, 1921. (Department Circular 153.) Price, 10 cents.
- Influence of Winter Rations on the Growth of Steers on Pasture. By E. W. Sheets, Animal Husbandry Division. Pp. 10, figs. 4. Contribution from the Bureau of Animal Industry. March, 1921. (Department Circular 166.) Price, 5 cents.
- Annual Report of the Governor of Alaska on the Alaska Game Law, 1920. Pp. 18. Contribution from the Bureau of Biological Survey. March 16, 1921. (Department Circular 168.) Price, 5 cents.

SERIALS.

Journal of Agricultural Research. (For sale only.) Vol. 20, No. 9, Feb. 1, 1921. Contents: Another Conidial Schlerospora of Philippine Maize. (wq. G-217). By William H. Weston, jr. Onion Smudge. (wr. G-218) By J. C. Walker. Variations in Colletrotrichum gloeosporioides. (ws. Calif.-28). By O. F. Burgher. Pp. 669-736, pls. 11, figs. 13. Price 25 cents.

Same. Vol. 20, No. 10, Feb. 15, 1921. Contents: A Transmissible Mosaic Disease of Lettuce. (wt. G-219). By Ivan C. Jagger. Leconte's Sawfly, and Enemy of Young Pines. (wl. K-91). By William Middleton. Amylase of Rhizopus tricti with a consideration of Its Secretion and Action. (wu. G-220). By L. L. Harter. A Comparative Study of the Composition of the Sunflower and Corn Plants at Different Stages of Growth. (wv. A-96). By R. H. Shaw and P. A. Wright. Pp. 737-793, pls. 6, figs. 3. Price, 20 cents.

perature Efficiency for the Ripening Processes in Sweetcorn. (wx. Md.-3.) By Charles O. Appleman and S. V. Eaton. Some Lepidoptera Likely to Be Confused with the Pink Bollworm. (wy. K-92.) By Carl Heinrich. Biology of the Smartweed Borer, Pyrausta ainsliei Heinrich. (wz. K-93.) By George G. Ainslie and W. B. Cartwright. Effect of X-Rays on Trichinæ. (ww. A-57.) By Benjamin Schwartz. Relation of the Calcium Content of Some Kansas Soils to the Soil Reaction as Determined by the Electrometric Titration. (xa. Kans.-23.) By C. O. Swanson, W. L. Latshaw, and E. L. Tague. Green Feed Versus Antiseptics as a Preventive of Intestinal Disorders of Growing Chicks. (xc. Ind.-8.) By A. G. Philips, R. H. Carr, and D. C. Kennard. Comparative Utilization of the Mineral Constituents in the Cotyledons of Bean Seedlings Grown in Soil and in Distilled Water. (xd. Ky.-10.) By G. Davis Buckner. Sunflower Silage Diges-Same. Vol. 20, No. 11, Mar. 1, 1921. Contents: Evaluation of Climatic Tem-Distilled Water. (xd. Ky.-10.) By G. Davis Buckner. Sunflower Silage Digestion Experiment with Cattle and Sheep. (xe. Idaho-5.) By Ray E. Neidig, Robert C. Snyder, and C. W. Hickman. Pp. 795-888, pls. 16, fig. 1. Price, 20

NOTE.—Volumes 1 to 4 of the Journal of Agricultural Research were published monthly, volumes 5 to 16 weekly, and volume 17 monthly. Beginning with volume 18, the issue is semimonthly. The Journal is distributed free only to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. It will not be sent free to individuals. The Superintendent of Documents will receive subscriptions for this publication, the price being \$1.50 per year for domestic circulation and \$2 for foreign circulation.

Experiment Station Record. Vol. 44, No. 3, Abstract Number. Mar. 21, 1921. E. W. Allen, Ph. D., Editor. Pp. 201–300. Price, 15 cents.

Note.—The Record's a technical review of the world's scientific literature pertaining to agriculture. It is not intended for general distribution and its free distribution is restricted to persons connected with the agricultural colleges, experiment stations, and similar institutions, and to libraries and exchanges. It can not be sent free to individuals having no official connection with public institutions. The Superintendent of Documents will receive subscriptions for this publication, which is issued in two volumes a year, 10 numbers each, at \$1 a volume.

The Monthly Crop Reporter. Vol. 7, No. 3, March, 1921. Pp. 25-36. (Bureau of Crop Estimates.) Price, 25 cents a year.

Contains data relating to agriculture, including estimates of acreage, conditions, yields, prices, and - value of crops and live stock.

ANNOUNCEMENT.—Because of the small fund available for printing, it has been found necessary to drop from the mailing list of the Monthly Crop Reporter all names of persons who are not actively cooperating with the United States Department of Agriculture. Persons whose names are dropped may subscribe for this publication through the Superintendent of Documents, Washington, D. C., at the domestic rate of 25 cents per year, and 40 cents per year to foreign address, payable only by postal money order or cash. No checks accepted.

The Market Reporter. Vol. 3, Nos. 10-13, inclusive, March, 1921. (Bureau of Markets.) For free distribution to applicants who show the need of it.

Same. Index to Vol. 2, July-December, 1920.

The Market Reporter is the official marketing publication of the United States Department of Agriculture. It contains general, current, and statistical marketing information for important classes of agricultural products, both staple and perishable, which is of general interest and of permanent value alike to producers, dealers, and consumers.

Weekly News Letter.

Contains a weekly summary in popular form of the more important practical discoveries and recommendations of all bureaus of the department. Free list confined to departmental employees, official cooperators, and the press. May be purchased from the Superintendent of Documents, Government Printing Office, for 50 cents a year.

SOIL SURVEYS.

All requests for soil surveys are referred to the Bureau of Soils for attention, the distribution of same being controlled by that bureau.

Soil Survey of Madison County, Georgia. By David D. Long, of the Georgia State College of Agriculture. Pp. 32, fig. 1, 1 map. (From F. O. Soils, 1918.) Price, 15 cents.

Soil Survey of Lake County, Indiana. By T. M. Bushnell, of the U. S. Department of Agriculture, in Charge, and Wendell Barrett, of the State of Indiana Department of Geology. Pp. 48, fig. 1, map. (From F. O. Soils, 1917.) Price, 15 cents.

SERVICE AND REGULATORY ANNOUNCEMENTS—FOR SALE ONLY.

These contain only information, instructions, and notices governing the enforcement of the food and drugs act, meat inspection, 28-hour, and quarantine laws, and the various regulations of the department. Issued monthly by certain bureaus. Free distribution is limited to persons in the employ of the department, to public officials whose duties render it necessary for them to have such information, to journals especially concerned, and to manufacturers and firms whose business is affected by same. Others desiring copies are respectfully referred to the Superintendent of Documents, Government Printing Office, who has them for sale only, at prices noted.

Biological Survey No. 38. Pp. 3. Mar. 1, 1921. Price, 5 cents.

Bureau of Chemistry. Supplement 99. (N. J. 8401-8450.) Pp. 267-296. Mar. 10, 1921. Price, 10 cents.

Same. Supplement 100. (N. J. 8451-8500.) Pp. 297-328. Mar. 11, 1921. Price, 10 cents.

Same. Supplement 101. (N. J. 8501-8550.) Pp. 1-27. Mar. 12, 1921. Price, 10 cents.

Federal Horticultural Board No. 69. Pp. 113-150, August-December, 1920, with contents. Mar. 19, 1921. Price, 5 cents.

Bureau of Plant Industry No. 4. Pp. 2. Mar. 17, 1921. Price, 5 cents.

PUBLICATIONS OF THE WEATHER BUREAU.

Publications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

Monthly Weather Review. Vol. 48, No. 12. December, 1920. Mar. 10, 1921. Pp. 687-745, figs. 19, charts 15. Price, 25 cents a copy, \$2.50 a year. Payable to the Superintendent of Documents.

Special articles: Atmospheric environment and health. By Leonard Hill. Note in regard to indoor and outdoor humidity. By John R. Weeks. Note in regard to the primary cause of colds. By John R. Weeks. Climate and health, with special reference to the United States. By R. De C. Ward. Comparison of temperature and humidity during 1920 with the mean, and their relation to comfort, at Anaconda, Mont. By C. D. Demond. The making of upper-air pressure maps from observed wind velocities. By C. L. Meisinger. The weather factor in aeronautics. By C. L. Meisinger.

National Weather and Crop and Snow and Ice Bulletin. Nos. 9, 10, 11, 12, 13, March, 1921, reporting weather and crop conditions throughout the United States. Issued weekly. Price, 25 cents a year.

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JOHN L. COBBS, Jr., Chief, Division of Publications. Name_____ Rural Route or Street No.__ City or Town State_____

United States Department of Agriculture, MONTHLY LIST OF PUBLICATIONS.

[APRIL, 1921.]

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FARMERS' BULLETINS-FOR FREE DISTRIBUTION.

NOTE.—As long as the department's somewhat limited supply of the current numbers of Farmers' Bulletins lasts they may be obtained by all applicants free of charge. They are also for sale at 5 cents per copy unless otherwise noted.

Flytraps and Their Operation. By F. C. Bischopp. Entomologist, Investigations of Insects Affecting the Health of Animals. Pp. 16, figs. 7. Contribution from the Bureau of Entomology. Revised, March, 1921. (Farmers' Bulletin 734.)

This bulletin is intended to give directions for the use of a supplementary means of controlling flies. Suitable for general distribution.

Cabbage Diseases. By L. L. Harter, Pathologist, Office of Cotton, Truck, and Forage Crop Disease investigations, and L. R. Jones, Collaborator of the Bureau of Plant Industry and Plant Pathologist of the Wisconsin Agricultural Experiment Station. Pp. 30, figs. 14. Contribution from the Bureau of Plant Industry. Revised, March, 1921. (Farmers' Bulletin 925.)

Suitable for general distribution.

Ginseng Culture. By W. W. Stockberger, Physiologist in Charge of Drug, Poisonous, and Oil Plant Investigations. Pp. 15, figs. 3. Contribution from the Bureau of Plant Industry. April, 1921. (Farmers' Bulletin 1184.)

This bulletin describes the ginseng plant and its cultivation in the United States, and discusses its commercial value.

Suitable for general distribution.

Cotton Diseases and their Control. By W. W. Gilbert, Pathologist, Office of Cotton, Truck, and Forage Crop Investigations. Pp. 32, figs. 18. Contribution from the Bureau of Plant Industry. March, 1921. (Farmers' Bulletin 1187.)

The principal cotton diseases are described in this bulletin, and methods of controlling them are suggested.

Standard Containers for Fruits and Vegetables. By F. P. Downing, Formerly Investigator in Package Standardization. Pp. 34, figs. 33. Contribution from the Bureau of Markets. April, 1921. (Farmers' Bulletin 1196.)

This bulletin discusses the lack of uniformity in the sizes of such packages as hampers, round stave baskets, splint or market baskets, and of many boxes and crates used in shipping perishables. Suitable for general distribution.

DEPARTMENT BULLETINS-TECHNICAL.

**The publications listed below are technical or scientific bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts.

Report of Investigations of the Pink Bollworm of Cotton in Mexico. By U. C. Loftin, Entomological Assistant, K. B. McKinney, Scientific Assistant, and W. K. Hanson, Plant Quarantine Inspector. Pp. 64, pls. 5, figs. 11. Contribution from the Bureau of Entomology in collaboration with The Federal Horticultural Board. (Professional Paper.) Apr. 19, 1921. (Department Bulletin 913.) Price, 20 cents.

This bulletin is based on two years' work in the Laguna District, Ciudad Lergo, Durango, Mexico, of investigations of the pink bollworm as a basis for control measures.

Studies in the Biology of the Mexican Cotton Boll Weevil on Short-Staple Upland, Long-Staple Upland, and Sea-Island Cottons. By George D. Smith, Entomological Assistant, Southern Field-Crop Insect Investigations. Pp. 44, pls. 1, figs. 18. Contribution from the Bureau of Entomology. (Professional Paper.) Apr. 19, 1921. (Department Bulletin 926.) Price, 15 cents.

Of interest to growers and shippers of cotton.

Commercial Utilization of Waste Seed From the Tomato Pulping Industry. By J. H. Shrader, Formerly Chemical Technologist, and Frank Rabak, Chemical Biologist, Office of Drug, Poisonous, and Oil-Plant Investigations. Pp. 29, figs. 11. Contribution from the Bureau of Plant Industry. Apr. 16, 1921. (Department Bulletin 927.) Price, 10 cents.

Of interest to commercial canners of tomatoes.

Cooperative Grain Marketing. A Compartive Study of Methods in the United States and in Canada. By J. M. Mehl, Investigator in Cooperative Organization. Pp. 21, figs. 5. Contribution from the Bureau of Markets. Apr. 9, 1921. (Department Bulletin 937.) Price, 5 cents.

Suitable for general distribution.

The Turkey an Important Factor in the Spread of Gapeworms. By B. H. Ransom, Chief, Zoological Division. Pp. 13. Contribution from the Bureau of Animal Industry. Apr. 23, 1921. (Department Bulletin 939.) Price, 5 cents.

Gives the results of experiments made to determine whether or not the association with turkeys is the cause of gapeworms in chickens.

The Sporogenes Test as an Index of the Contamination of Milk. By S. Henry Ayers and Paul W. Clemmer, of the Dairy Division. Pp. 20, pls. 8. Contribution from the Bureau of Animal Industry. (Professional Paper.) Apr. 25, 1921. (Department Bulletin 940.) Price, 15 cents.

A chemical study of this question which is of interest to chemists and bacteriologists.

Farm Management in the Ozark Region of Missouri. By H. M. Dixon, Associate Farm Economist, and J. M. Purdon, Scientific Assistant, Pp. 51, figs. 16. Contribution from the Office of Farm Management and Farm Economics. April 8, 1921. (Department Bulletin 941.) Price, 15 cents.

This bulletin is based on a study of the organization and management of 79 farms in the southern and southeastern Ozark region of Missouri. Data are presented on the size of farms, distribution of farm area, capital, receipts and expenses, and returns in farm and labor income.

Cost of Producing Wheat on 481 Farms of North and South Dakota, Minnesota, Kansas, Nebraska, and Missouri, for the Crop Year 1919. By M. R. Cooper and R. S. Washburn, Assistant Farm Economists. Pp. 59, pls. 2, figs. 9. Contribution from the Office of Farm Management and Farm Economics. April 30, 1921. (Department Bulletin 943.) Price, 15 cents.

MISCELLANEOUS.

Lawn Pennywort: A New Weed. By Albert A. Hansen, Agronomist in Weed Investigations. Pp. 6, figs. 3. Contribution from the Bureau of Plant Industry. April, 1921. (Department Circular 165.) Price, 5 cents.

A Dangerous Tobacco Disease Appears in the United States. By Edwin F. Smith, Pathologist in Charge, and R. E. B. McKenney, Pathologist, Laboratory of Plant Industry. Pp. 6. Contribution from the Bureau of Plant Industry. April, 1921. (Department Circular 174.) Price, 5 cents.

Describes a mildew different from any tobacco disease previously observed that has appeared in certain sections in Florida and Georgia.

Report of the Virgin Islands Agricultural Experiment Station. 1920. By Longfield Smith, Agronomist in Charge. Pp. 35, pls. 4. Price, 5 cents.

SERIALS.

Monthly List of Publications. Announcement of the publications issued by the Department of Agriculture. Sent regularly without charge to all who apply for it.

Journal of Agricultural Research. (For sale only.) Vol. 21, No. 1. Contents: Observations on the Body Temperature of Dry Cows. (Pa.-10) By Max Kriss. Effect of Time of Irrigation on Kernel Development of Barley. (G-221) By Harry V. Harlan, and Stephen Anthony. Leafroll, Net-Necrosis, and Spindling-Sprout of the Irish Potato. (G-222) By E. S. Schultz and Donald Folsom. Growth and Sap Concentration. (Calif.-29) By Howard S. Reed. Pp. 1-98, pls. 12, figs. 73. Price, 20 cents.

Note.—Volumes 1 to 4 of the Journal of Agricultural Research were published monthly, volumes 5 to 16 weekly, and volume 17 monthly. Beginning with volume 18, the issue is semimonthly. The Journal is distributed free only to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. It will not be sent free to individuals. The Superintendent of Documents will receive subscriptions for this publication, the price being \$1.50 per year for domestic circulation and \$2 for foreign circulation.

Experiment Station Record. Vol. 44. No. 4, March, 1921. E. W. Allen, Ph. D., Editor. Pp. 301-400. Price, 15 cents.

Note.—The Record is a technical review of the world's scientific literature pertaining to agriculture. It is not intended for general distribution and its free distribution is restricted to persons connected with the agricultural colleges, experiment stations, and similar institutions, and to libraries and exchanges. It can not be sent free to individuals having no official connection with public institutions. The Superintendent of Documents will receive subscriptions for this publication, which is issued in two volumes a year, 10 numbers each, at \$1 a volume.

The Monthly Crop Reporter. Vol. 7, No. 4, April, 1921. Pp. 37-48. (Bureau of Crop Estimates.) Price, 25 cents a year.

Contains data relating to agriculture, including estimates of acreage, conditions, yields, prices, and value of crops and live stock.

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The Market Reporter. Vol. 3, Nos. 14-18, inclusive, April, 1921. (Bureau of Markets.) For free distribution to applicants who show the need for it.

The Market Reporter is the official marketing publication of the United States Department of Agriculture. It contains general, current, and statistical marketing information for important classes of agricultural products, both staple and perishable, which is of general interest and of permanent value alike to producers, dealers, and consumers.

Weekly News Letter.

Contains a weekly summary in popular form of the more important practical discoveries and recommendations of all bureaus of the department. Free list confined to departmental employees, official cooperators, and the press. May be purchased from the Superintendent of Documents, Government Printing Office, for 50 cents a year.

SOIL SURVEYS.

All requests for soil surveys are referred to the Bureau of Soils for attention, the distribution being controlled by that bureau.

Soil Survey of the Aroostook Area, Maine. By Lewis A. Hurst, of the Bureau of Plant Industry, In Charge, and E. W. Knobel and B. H. Hendrickson, of the Bureau of Soils. Pp. 44, pls. 4, fig. 1, 2 maps. (From F. O. Soils, 1917.) Price, 15 cents.

Soil Survey of the Fort Laramie Area, Wyoming-Nebraska. By J. O. Veatch, In Charge, and R. W. McClure. Pp. 50, fig. 1, 1 map. (From F. O. Soils, 1917.) Price, 15 cents.

Soil Survey of Louisa County, Iowa. By L. Vincent Davis, of the U. S. Department of Agriculture, In Charge, and J. Ambrose Elwell, of the Iowa Agricultural Experiment Station. Pp. 50, fig. 1, 1 map. (From F. O. Soils, 1918.) Price, 15 cents.

Soil Survey of Knox County, Missouri. By H. H. Krusekopf, of the University of Missouri, In Charge, and H. I. Cohn, of the United States Department of Agriculture. Pp. 32, pl. 1, fig. 1, 1 map. (From F. O. Soils, 1917.) Price, 15 cents.

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Bureau of Animal Industry. No. 166. Pp. 17-27. Apr. 2, 1921. Price, 5 cents.

Bureau of Chemistry. Supplement 102. (N. J., 8551-8600.) Pp. 29-60. Apr. 25, 1921. Price, 10 cents.

Same. Supplement 103. (N. J. 8601-8650.) Pp. 61-96. April 26, 1921. Price, 10 cents.

Same. Supplement 104. (N. J. 8651-8700.) Pp. 97-134. April 28, 1921. Price, 10 cents.

Same. Supplement 105. (N. J. 8701-8750.) Pp. 135-172. April 27, 1921. Price, 10 cents.

Bureau of Markets, No. 67. Pp. 19. Price, 5 cents.

PUBLICATIONS OF THE WEATHER BUREAU.

20 Publications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

Monthly Weather Review. Vol. 49, No. 1. January, 1921. Pp. 1-52, figs. 19, charts, 16. Price 25 cents a copy, \$2.50 a year. Payable to the Superintendent of Documents.

Special articles: The meteorology of the temperate zone and the general atmospheric circulation. By V. Bjerknes. Balloon racing—a game of practical meteorology. By R. H. Upson. Meteorological aspects of the International Balloon Race of 1920. By C. G. Andrus. The application of Bjerknes lines to the development of secondary lows. By C. G. Andrus. Origin of some secondary cyclones on the middle Atlantic coast. By C. F. Brooks. Note on deep easterly winds over the Middle West on January 24, 25, and 26, 1921. By L. T. Samuels. Ice storm and gale of January 25–27, at Wilmington, N. C. By R. M. Dole. Dust cloud over Drexel, Nebr., January 15, 1921. By H. L. Choate. Our involuntary climatic travels. By J. B. Kincer.

National Weather and Crop and Snow and Ice Bulletin. Nos. 14, 15, 16, 17, April, 1921, reporting weather and crop conditions throughout the United States. Issued weekly. Price, 25 cents a year.

Note.—This bulletin is furnished free of charge to public and educational institutions, libraries, newspapers, cooperative observers, weather correspondents, and to those who will post or display it for the general benefit of the public. To all others the price is 25 cents per year, payable to the Superintendent of Documents, Government Printing Office, Washington, D. C.

NOT AVAILABLE FOR FREE DISTRIBUTION.

The department's supply of the publications listed below is exhausted. Requests for them, together with the remittance, should be sent to the Superintendent of Documents, Government Printing Office.

The Grape Phylloxera In California. By W. M. Davidson, Scientific Assistant, and R. L. Nougaret, Entomological Assistant, Deciduous Fruit Insect Investigations. Pp. 128, pls. 11, figs. 10. Contribution from the Bureau of Entomology. (Professional Paper.) Apr. 22, 1921. (Department Bulletin 903.) Price, 30 cents.

John L. Cobbs. Jr., Chief, Division of Publications.

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United States Department of Agriculture, MONTHLY LIST OF PUBLICATIONS.

[MAY, 1921.]

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A copy of any of the publications listed herein, except those otherwise noted, may be obtained free upon application to the Chief of the Division of Publications, United States Department of Agriculture, Washington, D. C., as long as the department's supply lasts.

After this department's supply is exhausted, publications can still be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., but by purchase only, and at the prices noted herein.

Send all remittances to the Superintendent of Documents direct. His

office is not a part of the Department of Agriculture.

FARMERS' BULLETINS-FOR FREE DISTRIBUTION.

NOTE.—As long as the department's somewhat limited supply of the current numbers of Farmers' Bulletins lasts they may be obtained by all applicants free of charge. They are also for sale at 5 cents per copy unless otherwise noted.

Handling and Transportation of Cantaloupes. By A. W. McKay, Specialist in Fruit Transportation and Storage Investigations; G. L. Fisher, Investigator; and A. E. Nelson, Investigator. Pp. 21, figs. 10. Contribution from the Bureau of Markets. May, 1921. (Farmers' Bulletin 1145.)

This bulletin treats of the proper methods of picking, packing, and storing cantaloupes for shipment to market. Of interest to cantaloupe growers and shippers.

Varieties of Winter Wheat Adapted to the Eastern United States. By Clyde E. Leighty, Agronomist in Charge of Eastern Wheat Investigations. Pp. 18, figs. 5. Contribution from the Bureau of Plant Industry. April, 1921. (Farmers' Bulletin 1168.)

This bulletin deals principally with the soft red and soft white winter wheats adapted to the eastern half of the United States. Of interest to wheat growers in the eastern United States.

Flag Smut of Wheat and Its Control. By W. H. Tisdale, Pathologist in Charge, and Marion A. Griffiths, Assistant Pathologist, Cereal-Smut Investigations. Pp. 6, figs. 2. Contribution from the Bureau of Plant Industry. May, 1921. (Farmers' Bulletin 1213.)

This bulletin describes the symptoms, dissemination, and control of flag smut, a destructive disease of wheat found in Madison County, Ill., in 1919. It discusses results of experiments with varieties of wheat resistant to the disease. Suitable for Suitable for general distribution.

DEPARTMENT BULLETINS-TECHNICAL.

The publications listed below are technical or scientific bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts.

The Freezing Point of Potatoes as Determined by the Thermoelectric Method. By R. C. Wright, Physiologist, Office of Horticultural and Pomological Investigations, and R. B. Harvey, Plant Physiologist, Office of Plant Physiological and Fermentation Investigations. Pp. 7, fig. 1. Contribution from the Bureau of Plant Industry. (Professional Paper.) May 10, 1921. (Department Bulletin 895.) Price, 5 cents.

This bulletin presents the results of a portion of the work carried on under the project "Factors affecting the storage life of vegetables." Suitable for general distri-

bution.

Effects of Nicotine Sulphate as an Ovicide and Larvicide on the Codling Moth and Three Other Insects. By N. E. McIndoo, Insect Pathologist; F. L. Simnton, Entomological Assistant; H. K. Plank and R. J. Fiske, Scientific Assistants, Fruit Insect Investigations. Pp. 19. Contribution from the Bureau of Entomology. (Professional Paper.) May 17, 1921. (Department Bulletin 938.) Price, 5 cents.

Covers results of experiments conducted in laboratory, and in orchards at Benton Harbor, Mich.; Grand Junction, Colo.; and Roswell, N. Mex.

Poisonous Properties of the Whorled Milkweeds Asclepias Pumila and A. Verticillata Var. Geyeri. By C. Dwight Marsh, Physiologist in Charge of Investigations of Stock Poisoning by Plants, and A. B. Clawson, Physiologist, Pathological Division. Pp. 14, pls. 3, figs. 2. Contribution from the Bureau of Animal Industry. (Professional Paper.) May 4, 1921. (Department Bulletin 942.) Price, 10 cents.

In this bulletin are summarized the results of the experimental work on these plants. Suitable for general distribution.

The Alcohol Test as a Means of Determining Quality of Milk for Condenseries. By A. O. Dahlberg and H. S. Garner, Research Laboratories, Dairy Division. Pp. 13, figs. 3. Contribution from the Bureau of Animal Industry. May 12, 1921. (Department Bulletin 944.) Price, 5 cents.

This bulletin gives the results of investigations made with a view to determining the possibilities of the alcohol test as a practical and reliable test for determining the quality of milk for condenseries making evaporated milk.

Nitrogen and Other Losses During the Ensiling of Corn. By R. H. Shaw, Chemist, and P. A. Wright and E. F. Deysher, Assistant Chemists, Dairy Division. Pp. 16. Contribution from the Bureau of Animal Industry. (Professional Paper.) May 14, 1921. (Department Bulletin 953.) Price, 5 cents.

This bulletin deals with the losses of nitrogen and other elements in corn silage made under ordinary farm conditions. Suitable for general distribution.

Unit Requirements for Producing Market Milk in Southeastern Louisiana. By J. B. Bain, Dairy Husbandman; G. E. Braun, Market Milk Specialist; and W. D. Wood, Assistant Market Milk Specialist, Dairy Division. Pp. 15. Contribution from the Bureau of Animal Industry. May 16, 1921. (Department Bulletin 955.) Price, 5 cents.

Of interest and value to dairymen.

MISCELLANEOUS.

Organization and Results of Boys' and Girls' Club Work. By George E. Farrell, in Charge of Boys' and Girls' Club Work, and Ivan L. Hobson, Assistant. Pp. 35, figs. 7. Contribution from the States Relations Service. April, 1921. (Department Circular 152.) Price, 5 cents.

The Satin Moth. An Introduced Enemy of Poplars and Willows. By A. F. Burgess, Entomologist in Charge of Gypsy-Moth and Brown-Tail Moth Investigations. Pp. 16, figs. 6. Contribution from the Bureau of Entomology. May, 1921. (Department Circular 167.) Price, 5 cents.

Annual White Sweet Clover and Strains of the Biennial Form. By A. J. Pieters, Agronomist in Charge of Clover Investigations, and L. W. Kephart, Scientific Assistant. Pp. 2, figs. 8. Contribution from the Bureau of Plant Industry, April, 1921. (Department Circular 169.) Price, 5 cents.

Instructions for Bird Banding. By Frederick C. Lincoln, Assistant Biologist. Pp. 19, figs. 11. Contribution from the Bureau of Biological Survey. April, 1921. (Department Circular 170.) Price, 5 cents.

The Samuel Mar

Unprotected Electric Lights. A Recently Developed Dust Explosion and Fire Hazard. By David J. Price, Engineer in Charge of Development Work, and Hylton R. Brown, Assistant, Grain Dust Explosion Prevention, Bureau of Chemistry. Pp. 7, fig. 1. Contribution from the Bureau of Chemistry. May, 1921. (Department Circular 171.) Price, 5 cents.

Suggestions to Growers for Treatment of Tobacco Blue-Mold Disease in the Georgia-Florida District. By Erwin F. Smith, Pathologist in Charge, and R. E. B. McKenney, Pathologist, Laboratory of Plant Pathology. Pp. 4. May, 1921. (Department Circular 176.) Price, 5 cents.

Sea Island Cotton in St. Croix. By Longfield Smith, Agronomist in Charge. Pp. 14, pls. 2. May 23, 1921. (Bulletin No. 1, Virgin Islands Agricultural Experiment Station.) Price, 5 cents.

List of Workers in Subjects Pertaining to Agriculture, 1920–1921. Part I. United States Department of Agriculture. Prepared in the Division of Publications. Part II. State Agricultural Colleges and Experiment Stations. Prepared in the States Relations Service. Pp. 82+98. (May, 1921.) Price, 20 cents.

Same. Part II. State Agricultural Colleges and Experiment Stations. Pp. 98. Price, 10 cents.

SERIALS.

Monthly List of Publications. Announcement of the publications issued by the Department of Agriculture. Sent regularly without charge to all who apply for it.

Journal of Agricultural Research. (For sale only.) Vol. 21, No. 2. Contents: Seed-Coat Injury and Viability of Seeds of Wheat and Barley as Factors in Susceptibility to Molds and Fungicides. (G-223.) By Annie May Hurd.—Bacterial Spot of Tomato. (Ind.-9.) By Max W. Gardner and James B. Kendrick.—Carbon Tetrachlorid for the Removal of Parasitic Worms, Especially Hookworms. (A-58.) By Maurice C. Hall. Pp. 99-175, pls. 16. Price, 25 cents.

Same. Vol. 21, No. 3. Contents: Cotton Rootrot in the San Antonio Rotations. (G-224.) By C. S. Scofield.—Life History of Recurvaria milleri, the Lodgepole Pine Needle-Miner in the Yosemite National Park, California. (K-94.) By J. E. Petterson.—A Bacterial Budrot of Cannas. (G-225.) By Mary K. Bryan.—A Chlorosis of Conifers Corrected by Spraying with Ferrous Sulphate. (F-5.) By Clarence F. Korstain, Carl Hartley, Lyle F. Watts, and Glenn G. Hahn.—Rooting Stems in Timothy. (G-226.) By R. A. Oatley and Morgan W. Evans.—Collar-Rot of Tomato. (G-227.) By F. J. Pritchard and W. S. Porte.—Bacterial Leafspot Disease of Celery. (G-228.) By Ivan C. Jagger. Pp. 117-188, pls. 19, figs. 8. Price, 25 cents.

NOTE.—Volumes 1 to, 4 of the Journal of Agricultural Research were published monthly, volumes 5 to 16 weekly, and volume 17 monthly. Beginning with volume 18, the issue is semimonthly. The Journal is distributed free only to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. It will not be sent free to individuals. The Superintendent of Documents will receive subscriptions for this publication, the price being \$1.50 per year for domestic circulation and \$2 for foreign circulation.

Experiment Station Record. Vol. 44. No. 5, April, 1921. E. W. Allen, Ph. D., Editor. Pp. 401-500. Price, 15 cents.

Same. Vol. 44, No. 6. Abstract Number. May 22, 1921. E. W. Allen, Ph. D., Editor. Pp. 501-600. Price, 15 cents.

NOTE.—The Record is a technical review of the world's scientific literature pertaining to agriculture. It is not intended for general distribution and its free distribution is restricted to persons connected with the agricultural colleges, experiment stations, and similar institutions, and to libraries and exchanges. It can not be sent free to inviduals having no official connection with public institutions. The Superintendent of Documents will receive subscriptions for this publication, which is issued in two volumes a year, 10 numbers each, at \$1 a volume.

The Monthly Crop Reporter. Vol. 7, No. 5, May, 1921. Pp. 49-60. (Bureau of Crop Estimates.) Price, 25 cents a year.

Contains data relating to agriculture, including estimates of acreage, conditions, yields, prices, and value of crops and live stock.

ANNOUNCEMENT.—Because of the small fund available for printing, it has been found necessary to drop from the mailing list of the Monthly Crop Reporter all names of persons who are not actively cooperating with the United States Department of Agriculture. Persons whose names are dropped may subscribe for this publication through the Superintendent of Documents, Washington, D. C., at the domestic rate of 25 cents per year, and 40 cents per year to foreign address, payable only by postal money order or cash. No checks accepted.

The Market Reporter. Vol. 3, Nos. 19-22, inclusive, May, 1921. (Bureau of Markets.) For free distribution to applicants who show the need for it.

The Market Reporter is the official marketing publication of the United States Department of Agriculture. It contains general, current, and statistical marketing information for important classes of agricultural products, both staple and perishable, which is of general interest and of permanent value alike to producers, dealers, and consumers.

Weekly News Letter.

Contains a weekly summary in popular form of the more important practical discoveries and recommendations of all bureaus of the department. Free list confined to departmental employees, official cooperators, and the press. May be purchased from the Superintendent of Documents, Government Printing Office, for 50 cents a year.

SERVICE AND REGULATORY ANNOUNCEMENTS-FOR SALE ONLY.

These contain only information, instructions, and notices governing the enforcement of the food and drugs act, meat inspection, 28-hour, and quarantine laws, and the various regulations of the department. Issued monthly by certain bureaus. Free distribution is limited to persons in the employ of the department, to public officials whose duties render it necessary for them to have such information, to journals especially concerned, and to manufacturers and firms whose business is affected by same. Others desiring copies are respectfully referred to the Superintendent of Documents, Government Printing Office, who has them for sale only, at prices noted.

Bureau of Animal Industry. No. 167. Pp. 29-40. April 30, 1921. Price, 5 cents.

Same. No. 168. Pp. 41-49. May 18, 1921. Price, 5 cents.

Bureau of Chemistry. Suppl. 106. (N. J. 8751-8800.) Pp. 173-204. May 13, 1921. Price, 10 cents.

Same. Suppl. 107. (N. J. 8801-8850.) Pp. 205-244. May 20, 1921. Price, 10 cents.

Same. Suppl. 108. (N. J. 8851-8900.) Pp. 245-278. May 18, 1921. Price, 10 cents.

Same. Suppl. 109. (N. J. 8901-8950.) Pp. 279-317. May 23, 1921. Price, 10 cents.

Same. Suppl. 110. (N. J. 8951-9000.) Pp. 319-354. May 24, 1921. Price, 10 cents.

Same. Suppl. 111. (N. J. 9001-9050.) Pp. 1-36. May 25, 1921. Price, 10 cents.

Same. Suppl. 112. (N. J. 9050-9100). Pp. 37-70. May 28, 1921. Price, 10 cents.

Insecticide and Fungicide Board. No. 34. (N. J. 626–650.) (Pp. 775–802. May 23, 1921. Price, 5 cents.

Bureau of Markets No. 68. Complete Lists of Warehousemen, Classifiers, and Weighers Licensed Under the United States Warehouse Act Prior to April 1, 1921. Pp. 26. May, 1921. Price, 5 cents.

PUBLICATIONS OF THE WEATHER BUREAU.

Republications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

Monthly Weather Review. Vol. 49, No. 2. February, 1921. Pp. 53-114, figs. 23, charts 18. Price, 25 cents a copy, \$2.50 a year. Payable to the Superintendent of Documents.

Special articles: Climate of Binghamton, N. Y., shown by the histogram method. By J. R. Weeks. Temperature variations in the United States and elsewhere. By A. J. Henry. Sequence of winters in the northeastern United States. By C. F. Brooks. A possible rainfall period equal to one-ninth the sunspot period. By Dinsmore Alter. Meteorological course given in the Signal Corps School at Camp Alfred Vail, N. J., during 1920. By H. W. Ball.

Same. Subject and Author Index to Vol. 48, 1920.

National Weather and Crop and Snow and Ice Bulletin. Nos. 18, 19, 20, 21, 22, May, 1921, reporting weather and crop conditions throughout the United States. Issued weekly. Price, 25 cents a year.

Note.—This bulletin is furnished free of charge to public and educational institutions, libraries, newspapers, cooperative observers, weather correspondents, and to those who will post or display it for the general benefit of the public. To all others the price is 25 cents per year, payable to the Superintendent of Documents, Government Printing Office, Washington, D. C.

John L. Cobbs, Jr., Chief, Division of Publications.

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United States Department of Agriculture, MONTHLY LIST OF PUBLICATIONS.

[JUNE, 1921.]

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FARMERS' BULLETINS-FOR FREE DISTRIBUTION.

OF NOTE.—As long as the department's somewhat limited supply of the current numbers of Farmers' Bulletins lasts they may be obtained by all applicants free of charge. They are also for sale at 5 cents per copy unless otherwise noted.

Insects Injurious to Deciduous Shade Trees and Their Control. By Jacob Kotinsky, Assistant in Forest Entomology. Pp. 100, figs. 64. Contribution from the Bureau of Entomology. June, 1921. (Farmers' Bulletin 1169.)

This bulletin discusses the more important insects affecting deciduous shade trees in the eastern two-thirds of the United States with the exception of the gipsy moth and the brown-tail moth and gives remedies for them.

Making American Cheese on the Farm. By C. M. Gere, Dairy Division. Pp. 19, figs. 14. Contribution from the Bureau of Animal Industry. June, 1921. (Farmers' Bulletin

Presents a simple method for making good cheese in small quantities on the farm. Suitable for general distribution.

The Organization of Rural Community Buildings. By W. C. Nason, Assistant in Rural Organization. Pp. 48, figs. 10. Contribution from the Office of Farm Management and Farm Economics. June, 1921. (Farmers' Bulletin 1192.)

This buildin is designed to give rural communities desiring community buildings the benefit of the experience of other communities in securing and financing such buildings.

ice as Food. Prepared by the Office of Home Economics. Pp. 21, figs. 4. Contribution from the States Relations Service. May, 1921. (Farmers' Bulletin 1195.)

Discusses the food value of rice and contains recipes for preparing and serving it in various ways. Suitable for general distribution.

Protection of Mesquite Cordwood and Posts from Borers. By F. C. Craighead, Specialist in Forest Entomology, and George Hofer, Entomological Ranger. Pp. 12, figs. 17. Contribution from the Burcau of Entomology. May, 1921. (Farmers' Bulletin 1197.) Discusses certain borers that destroy mesquite wood after it is cut and describes methods of preventing injury by them. Of interest to the southwestern United States.

Potato Production in the South. By William Stuart, Horticulturist, Office of Horticultural and Pomological Investigations. Pp. 39, figs. 22. Contribution from the Bureau of Plant Industry. (Farmers' Bulletin 1205.)

Treats of the importance of the southern potato crop and discusses the leading varieties used for early crop production. Of interest to farmers and growers in the Southern States.

The Corn Earworm as an Enemy to Vetch. By Philip Luginbill, Entomological Assistant, and A. H. Beyer, Scientific Assistant, Cereal and Forage Insect Investigations. Pp. 19, figs. 13. Contribution from the Eureau of Entomology. June, 1921. (Farmers' Bulletin 1906) letin 1206.)
Suitable for general distribution.

Straighthead of Rice and Its Control. By W. H. Tisdale, Pathologist in Charge of Rice-Disease Investigations, and I. Mitchell Jenkins, Superintendent Rice Experiment Station, Crowley, Ala., in cooperation with the Louisiana Experiment Station. Pp. 16, figs. 6. Contribution from the Bureau of Plant Industry. June, 1921. (Farmers' Bulletin 1212.)

Of interest to rice growers generally.

DEPARTMENT BULLETINS-TECHNICAL.

ATThe publications listed below are technical or scientific bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts.

The Cut-Over Pine Lands of the South for Beef-Cattle Production. By F. W. Farley and S. W. Greene, Animal Husbandry Division. Pp. 51, figs. 13. Contribution from the Bureau of Animal Industry. May 26, 1921. (Department Bulletin 827.) Price, 15

Gives information as to the resources and possibilities of the cut-over pine lands of the south for beef-cattle production. Of interest to cattlemen and owners of cut-over pinelands in the south.

Freezing Injury to Potatoes When Undercooled. By R. C. Wright, Physiologist, and George F. Taylor, Chemical Laboratorian, Office of Horticultural and Pomological Investigations. Pp. 15, pl. 1, fig. 1. Contribution from the Bureau of Plant Industry. (Professional Paper.) June 13, 1921. (Department Bulletin 916.) Price, 5 cents. This bulletin gives the result of a portion of the work carried on under the project "Factors Affecting the Storage Life of Vegetables."

Damping-Off in Forest Nurseries. By Carl Hartley, Formerly Pathologist, Office of Investigations in Forest Pathology. Pp. 99, pl. 1, figs. 20. Contribution from the Bureau of Plant Industry. (Professional Paper.) June 16, 1921. (Department Bulletin 934.) Price, 10 cents.

Wild Ducks and Duck Food of the Bear River Marshes, Utah. By Alexander Wetmore, Assistant Biologist. Pp. 20, pls. 4. Contribution from the Bureau of Biological Survey. (Professional Paper.) May 31, 1921. (Department Bulletin 936.) Price, 5

Reports on the abundance, food supplies, and general conditions affecting wild ducks and geese breeding on Bear River marshes, or frequenting this region at other times of the year, before migration. Of interest to sportsmen and others interested in waterfowl.

The Influence of Calcium and Phosphorus in the Feed on the Milk Yield of Dairy Cows. By Edward B. Meigs, Physiologist, and T. E. Woodward, Dairy Husbandman, of the Dairy Division. Pp. 28, figs. 3. Contribution from the Bureau of Animal Industry. (Professional Paper.) May 27, 1921. (Department Bulletin 945.) Price, 5 cents. Summarizes the experiments conducted at Beltsville, Md., with a view to determining the influence of calcium and phosporus on the milk yield of dairy cows.

Regional Development of the Pulpwood Resources of the Tongass National Forest, Alaska. By Clinton G. Smith, Forest Inspector. Pp. 40, pls. 4. Contribution from the Forest Service. (Professional Paper.) June 15, 1921. (Department Bulletin 950.) Price, 10

cents.

Prepared to aid those who wish information on the timber and other resources of the Tongass National Forest in Alaska.

Methods for Close Automatic Control of Incubating Temperatures in Laboratories. By John T. Bowen, Technologist, Dairy Division. Pp. 16. figs. 13. Contribution from the Bureau of Animal Industry. (Professional Paper.) June 4, 1921. (Department Bulletin 951.) Price, 5 cents.

Of interest to chemists and others pursuing studies requiring constant temperatures.

Commercial Utilization of Grape Pomace and Stems From the Grape-Juice Industry. By Frank Rabak, Chemical Biologist, and J. H. Shrader, Chemical Technologist, Office of Drug, Poisonous, and Oil Plant Investigations. Pp. 24, figs. 10. Contribution from the Bureau of Plant Industry. (Professional Paper.) June 4, 1921. (Department Bulletin 952.) Price, 10 cents.

Discusses the possibilities of converting present waste material in the grape-juice industry into products of commercial value. Of interest to the grape-juice industry.

MISCELLANEOUS.

- Yam Culture in Porto Rico. By C. F. Kinman, Horticulturist. Pp. 22, pls. 6. May 24, 1921. (Porto Rico Experiment Station Bulletin No. 27.) Price, 10 cents.
- The Range Crane-Flies in California. By C. M. Packard and B. G. Thompson, Scientific Assistants, Cereal and Forage Insect Investigations. Pp. 8, figs. 5. Contribution from the Bureau of Entomology. May, 1921. (Department Circular 172.) Price, 5 cents.
- The Work of the Scottsbluff Reclamation Project Experiment Farm in 1918 and 1919. I James A. Holden, Farm Superintendent. Pp. 36, figs. 2. Contribution from the Bureau of Plant Industry. June, 1921. (Department Circular 173.) Price, 5 cents.
- Linters. By A. M. Aglesto, Specialist in Cotton Classing. Pp. 10. Contribution the Bureau of Markets. May, 1921. (Department Circular 175.) Price, 5 cents. Contribution from
- The Present Status of the Tobacco Blue-Mold (Peronospora) Disease in the Georgia-Florida District. By Edwin F. Smith, Pathologist In Charge, and R. E. B. McKenney, Pathologist, Laboratory of Plant Pathology. Pp. 4. Contribution from the Bureau of Plant Industry. June 7, 1921. (Department Circular 181.) Price, 5 cents.
- The Occurrence of Wheat Downy Mildew in the United States. By William H. Weston, jr. Pp. 6. Contribution from the Bureau of Plant Industry. June, 1921. (Department Circular 186.) Price, 5 cents.

REPORTS.

Field Operations of the Bureau of Soils. (Eighteenth Report.) 1916. By Milton Whitney, Chief, with accompanying papers by assistants in charge of field parties. Pp. 2574, pls. 76, figs. 64, maps (in case) 61. Price, \$8.25, cloth.

For distribution also by Senators, Representatives, and Delegates in Congress.

SERIALS.

Monthly List of Publications. Announcement of the publications issued by the Department of Agriculture. Sent regularly without charge to all who apply for it.

contents: Glucose as a Source of Carbon for Certain Sweet-Potato Storage-Rot Fungi. (G-229.) By J. L. Weimer and L. L. Harter.—Respiration of Sweet Potato Storage-Rot Fungi When Grown on a Nutrient Solution. (G-230.) By L. L. Harter and J. L. Weimer.—Heritable Variations in an Apparently Uniform Variety of Cotton. (G-231.) By Thomas H. Kearney.—Some Relations of Temperature to Growth and Infection in the Citrus Scab Fungus Cladosporium Citri. (Calif.-30.) By H. S. Fawcett.—Bacterial Wilt of Castor Bean (Ricinus Communis L.). (G-232.) By Erwin F. Smith and G. H. Godfrey.—Stewart's Disease of Corn. (G-233.) By Frederick V. Rand and Lillian C. Cash.—Quality of Irrigation Water in Relation to Land Reclamation. (G-234.) By Carl S. Scofield and Frank B. Headley. Pp. 189-278, pls. 20, figs. 2. Price, 25 cents. Price, 25 cents.

Same. Vol. 21, No. 5. June 1, 1921. Contents: Effect of Ration on the Development of Pigs. (Kans.-24.) By C. O. Swanson.—Some Fundamentals of Stable Ventilation. (Pa.-11.) By Henry Prentiss Armsby and Max Kriss.—Treatment of Celery Seed for the Control of Septoria Blight. (Mass.-6.) By Webster S. Krout. Pp. 279-372, figs. 22. Price, 15 cents.

ame. Vol. 21, No. 6. June 15, 1921. Contents: Biology of and Economic Importance of Anastatus semiflavidus, a Recently Described Egg Parasite of Hemileuca oliviae. (K-95) By D. J. Caffrey. Varietal Susceptibility of Beans to Rust. (Va. Blacksburg) -3. By F. D. Fromme and S. A. Wingard. Life-History Studies of Three Jointworm Parasites. (K-96) By W. J. Phillips and F. W. Poos. Pp. 373-426. Pls. 12, figs. 18. Price, 20 cents.

ENNOTE.—Volumes 1 to 4 of the Journal of Agricultural Research were published monthly, volumes 5 to 16 weekly, and volume 17 monthly. Beginning with volume 18, the issue is semimonthly. The Journal is distributed free only to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. It will not be sent free to individuals. The Superintendent of Documents will receive subscriptions for this publication, the price being \$1.50 per year for domestic circulation and \$2 for foreign circulation.

Experiment Station Record. Vol. 44. No. 6, Abstract Number. May 22, 1921. E. W. Allen, Ph. D., Editor. Pp. 501-600. Price, 15 cents.

me. Vol. 42, Index Number. June 6, 1921. E. W. Allen Ph. D., Editor. Pp. XXIII, 901-1007. Price, 15 cents.

TNOTE.—The Record is a technical review of the world's scientific literature pertaining to agriculture. It is not intended for general distribution and its free distribution is restricted to persons connected with the agricultural colleges, experiment stations, and similar institutions, and to libraries and exchanges. It can not be sent free to individuals having no official connection with public institutions. The Superntendent of Documents will receive subscriptions for this publication, which is issued in two volumes a year, 10 numbers each, at \$1 a volume.

Vol. 7, The Monthly Crop Reporter. No. 6, June, 1921. Pp. 61-72. (Bureau of Crop

Estimates.) Price, 25 cents a year.
Contains data relating to agriculture, including estimates of acreage, conditions, yields, prices, and value of crops and live stock.
ANNOUNCEMENT.—Because of the small fund available for printing, it has been found necessary to drop from the mailing list of the Monthly Crop Reporter all names of persons who are not actively cooperating with the United States Department of Agriculture. Persons whose names are dropped may subscribe for this publication through the Superintendent of Documents, Washington, D. C., at the domestic rate of 25 cents per year, and 40 cents per year to foreign address, payable only by postal money order or cash. checks accepted.

The Market Reporter. Vol. 3, Nos. 23-26, inclusive, June. 1921. (Bureau of Markets.) For free distribution to applicants who show the need for it and give the general nature of their business or occupation in connection with which this publication will

be used.

The Market Reporter is the official marketing publication of the United States Department of Agriculture. It contains general, current, and statistical marketing information for important classes of agricultural products, both staple and perishable, which is of general interest and of permanent value alike to producers, dealers, and consumers.

Weekly News Letter. Contains a weekly summary in popular form of the more important practical discoveries and recommendations of all bureaus of the department. Free list confined to departmental employees, official cooperators, and the press. May be purchased from the Superintendent of Documents, Government Printing Office, for 50 cents a year.

SOIL SURVEYS.

All requests for soil surveys are referred to the Bureau of Soils for attention, the distribution being controlled by that bureau.

Soil Survey of the Grass Valley Area, California. By E. B. Watson, of the U. S. Department of Agriculture, In Charge, and J. B. Hammon, of the University of California. Pp. 40, pls. 3, figs. 1, map 1. (From F. O. Soils, 1918.) Price, 15 cents.

Soil Survey of Early County, Georgia. By David D. Long, of the Georgia State College of Agriculture, In Charge, and E. C. Hall, of the U. S. Department of Agriculture. Pp. 43, figs. 1, 1 map. (From F. O. Soils, 1918.) Price, 15 cents.

- Soil Survey of Floyd County, Georgia. By David A. Long, of the Georgia State College of Agriculture. Pp. 72, fig. 1, 1 map. (From F. O. Soils, 1917.) Price, 15 cents.
- Soil Survey of Pike County, Mississippi. By A. T. Sweet, E. W. Knobel, H. G. Lewis, and W. I. Watkins. Pp. 32, pls. 5, fig. 1, 1 map. (From F. O. Soils, 1918.) Price, 15 cents.)
- Soil Survey of Hoke County, North Carolina. By E. S. Vanatta, In Charge, and W. B. Cobb, of the U. S. Department of Agriculture, and L. L. Brinkley and S. F. Davidson, of the North Carolina Department of Agriculture. Pp. 32, fig. 1, map 1. (From F. O. Soils, 1918.) Price, 15 cents.
- Soil Survey of Orange County, North Carolina. By E. S. Vanatta, of the U. S. Department of Agriculture, In Charge, and L. L. Brinkley and S. F. Davidson, of the North Carolina Department of Agriculture. Pp. 48, fig. 1, 1 map. (From F. O. Soils 1918.) Price, 15 cents.
- Soil Survey of Vance County, North Carolina. By S. O. Perkins, of the U. S. Department of Agriculture, In Charge, and W. A. Davis, of the North Carolina Department of Agriculture. Pp. 31, fig. 1, 1 map. (From F. O. Soils, 1918.) Price, 15 cents.
- Soil Survey of Wilkes County, North Carolina. By R. C. Jurney, of the U. S. Department of Agriculture, In Charge, and S. O. Perkins, of the North Carolina Department of Agriculture. Pp. 39, fig. 1, 1 map. (From F. O. Soils, 1918.) Price, 15 cents.
- Soil Survey of Newberry County, South Carolina. By W. J. Latimer, In Charge, T. M. Morrison and F. Z. Hutton. Pp. 46, fig. 1, map 1. (From F. O. Soils 1918.) Price, 15 cents.
- Soil Survey of Spokane County, Washington. By Cornelius Van Duyne, In Charge, and H. C. Mortlock, of the U. S. Department of Agriculture, and A. F. Heck and E. D. Alvord, of the Washington Geological Survey. Pp. 108, pls. 3, figs. 5, map 1. (From F. O. Soils, 1917.) Price, 30 cents.

SERVICE AND REGULATORY ANNOUNCEMENTS-FOR SALE ONLY.

These contain *only* information, instructions, and notices governing the enforcement of the food and drugs act, meat inspection, 28-hour, and quarantine laws, and the various regulations of the department. Issued monthly by certain bureaus. *Free distribution* is limited to persons in the employ of the department, to public officials whose duties render it necessary for them to have such information, to journals especially concerned, and to manufacturers and firms whose business is affected by same. Others desiring copies are respectfully referred to the Superintendent of Documents, Governing Printing Office, who has them for sale *only*, at prices noted.

- Bureau of Biological Survey. No. 40. Migratory-Bird Treaty, Act, and Regulations. Pp. 12. June 6, 1921. Price, 5 cents.
- Same. No. 41. Regulations for the Alcutian Islands Reservation, Alaska. Pp. 4. June 25, 1921. Price, 5 cents.
- Bureau of Chemistry. Supplement 113. (N. J. 9101-9150.) Pp. 71-106. June 17, 1921. Price, 10 cents.
- Federal Horticultural Board. Index to Service and Regulatory Announcements for 1920. Pp. 1-7. June 8, 1921. Price, 5 cents.
- Insecticide and Fungicide Board. No. 35. Notice Relative to State Insecticide and Fungicide Laws. Pp. 803-834. June 21, 1921. Price, 5 cents.

PUBLICATIONS OF THE WEATHER BUREAU.

APPublications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

National Weather Review. Vol. 49, No. 3, March, 1921. Pp. 115-181, figs. 32. Charts 16. Price, 15 cents a copy, \$1.50 a year, payable to the Superintendent of Documents. Special Articles: Theory and Use of the Periodocrite. By C. F. Marvin.—A Statistical Comparison of Meteorological Data With Data of Random Occurrence. By H. W. Clough.—The Mean Variability as a Statistical Coefficient. By E. W. Woolard.—The Variate Difference Correlation Method. By E. W. Woolard.—Note on Prof. Marvin's Discussion of "A Possible Rainfall Period Equal to One-Ninth the Sun-Spot Period. By Dinsmore Alter.—Registration of the Intensity of Sun and Diffused Sky. By A. Angstrom and C. Dorno.—Nocturnal Temperature Inversions in Oregon and California. By F. D. Young.—Evaporation and Forest Fires. By E. N. Munns.—Forecasting Thunderstorms by Means of Static Electricity. By F. W. Reichelderfer.—Naval Meteorology During Seaplane Flights from San Diego to Balboa. By J. C. O'Brien.

National Weather and Crop and Snow and Ice Bulletin. Nos. 23, 24, 25, 26, June, 1921, reporting weather and crop conditions throughout the United States. Issued weekly, Price, 25 cents a year.

Note.—This bulletin is furnished free of charge to public and educational institutions, libraries, newspapers, cooperative observers, weather correspondents, and to those who will post or display it for the general benefit of the public. To all others the price is 25 cents per year, payable to the Superintendent of Documents, Government Printing Office, Washington, D. C.

John L. Cobbs, Jr., Chief, Division of Publications.

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United States Department of Agriculture,

MONTHLY LIST OF PUBLICATIONS.

[July, 1921.]

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A copy of any of the publications listed herein, except those otherwise noted, may be obtained free upon application to the Chief of the Division of Publications, United States Department of Agriculture, Washington, D. C., as long as the department's supply lasts.

After this department's supply is exhausted, publications can still be obtained from the Superintendent of Documents, Government Printing Office, Washington,

D. C., but by purchase only, and at the prices noted herein.

Send all remittances to the Superintendent of Documents direct. His office is not a part of the Department of Agriculture.

FARMERS' BULLETINS-FOR FREE DISTRIBUTION.

NOTE.—As long as the department's somewhat limited supply of the current numbers of Farmers' Bulletins lasts they may be obtained by all applicants free of charge. They are also for sale at 5 cents per copy unless otherwise noted.

Sweet-Potato Storage. By H. C. Thompson, Horticulturist, Office of Horticultural and Pomological Investigations. Pp. 27, figs. 15. Contribution from the Bureau of Plant Industry. Revised, June, 1921. (Farmers' Bulletin 970.)

This bulletin describes the types of storage houses that have proved successful and the proper method of handling sweet potatoes from harvesting to marketing. Of interest to sweet-potato growers.

Tuberculosis of Fowls. By Bernard A. Gallagher, Pathological Division. Pp. 11, figs. 2. Contribution from the Bureau of Animal Industry. June, 1921. (Farmers' Bulletin 1200.)

Suitable for general distribution.

Northwestern Apple Packing Houses. By Raymond R. Pailthorp, Investigator in Marketing Fruits and Vegetables, and Harold W. Samson, Specialist in Standardization. Pp. 39, figs. 26. Contribution from the Bureau of Markets, June, 1921. (Farmers' Bulletin 1204.)

This bulletin deals with the details of construction, arrangement, equipment, and operation of boxed apple packing houses and is based on a study of methods and practices which have given the greatest satisfaction in commercial operations.

The Green-Bug or Spring Grain-Aphis: How to Prevent Its Periodical Outbreaks. By W. R. Walton, Entomologist in Charge, Cereal and Forage Insect Investigations. Pp. 10, figs. 9. Contribution from the Bureau of Entomology. June, 1921. (Farmers' Bulletin 1217.) Suitable for general distribution.

DEPARTMENT BULLETINS-TECHNICAL.

The publications listed below are technical or scientific bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts.

Wintering and Summer Fattening of Steers in North Carolina. By F. W. Farley and F. T. Peden, Animal Husbandry Division, Bureau of Animal Industry, and R. S. Curtis, North Carolina Agricultural Experiment Station. Pp. 18, figs. 6. Contribution from the Bureau of Animal Industry. June 30, 1921. (Department Bulletin 954.) Price, 5 cents.

Gives results of experiments conducted to ascertain the cost and value of different methods of feeding and fattening cattle under winter and summer conditions. Of interest to stockmen in the mountainous regions of Kentucky, Tennessee, West Virginia, Virginia, North and South Carolina, and Georgia.

Buying Farms With Land-Bank Loans. By L. C. Gray, Agricultural Economist, and Howard A. Turner, Junior Agricultural Economist. Pp. 27, figs 6. Contribution from the Office of Farm Management and Farm Economics. July 29, 1921. ((Department Bulletin 968.) Price, 5 cents.

Presents a study based on the experience of 2700 farmers who have borrowed money through the Federal Farm Loan Banks, with a view of determining the extent to which the system provides for the needs of the landless farmer seeking to buy farm land.

Suitable for general distribution.

MISCELLANEOUS.

Yearbook of the U. S. Department of Agriculture, 1920. Pp. 888. il. Price, \$1.25 a copy.

This Yearbook contains the annual report of the Secretary, 76 pages; 30 miscellaneous articles, 419 pages; an appendix, 336 pages; an index, 47 pages. The amount of the Yearbooks allotted to the department will not permit us to furnish a copy to anyone except our own investigators, field workers, and official cooperators. Applicants other than persons in these groups are advised that the publication can not be furnished to them by the department. Each Member of Congress receives an allotment to be distributed as he may direct, and the Superintendent of Documents, Government Printing Office, Washington, D. C., has copies for sale at \$1.25 per copy.

The Migratory Bird Treaty Act. Extract from charge delivered to the grand intry in the district court

The Migratory Bird Treaty Act. Extract from charge delivered to the grand jury in the district court of the United States at Opelika, Ala., April 4, 1921, by Hon. Henry D. Clayton, U. S. District Judge. Contribution from the Office of the Solicitor. (July, 1921.) (Department Circular 182.) Price, 5 cents.

Report of the Porto Rico Agricultural Experiment Station, 1920. By D. W. May, Agronomist in Charge. Pp. 39, pls. 6. Price, 10 cents.

Inventory of Seeds and Plants Imported by the Office of Foreign Seed and Plant Introduction during the period from July 1 to September 30, 1916. Pp. 56, pls. 5. July 21, 1921. (Inventory No. 48: Nos. 43013-43390. Bureau of Plant Industry.) Price, 10 cents.

SERIALS.

Monthly List of Publications. Announcement of the publications issued by the Department of Agriculture. Sent regularly without charge to all who apply for it.

culture. Sent regularly without charge to all who apply for it.

Journal of Agricultural Research. (For sale only.) Vel. 21, No. 6. June 15, 1921. Contents: Biology and Economic Importance of Anastatus semiflavidus, a Recently Described Egg Parasite of Hemileuca oliviae. (K-95) By D. J. Caffrey. Varietal Susceptibility of Beans to Rust. (Va. Blacksburg-3) By F. D. Fromme and S. A. Wingard. Life-History of Three Jointworm Parasites. (K-96) By W. J. Phillips and F. W. Poos. Pp. 373-426. Pls. 12, figs., 19. Price, 20 cents.

Same. (For sale only.) Vol. 21, No. 7. July 1, 1921. Contents: Study of the Relation of the Length of Kernel to the Yield of Corn (Zea mays indentata). (Kans.-25) By C. C. Cunningham. Distinguishing Characters of the Larval Stages of the Ox-Warbles Hypoderma bovis and Hypoderma lineatum, with Description of a New Larval Stage. (K-97) By E. W. Laake. Pathogenicity of Corticium vagum on the Potato as Affected by Soil Temperature. (Utah-13) By B. L. Richards. Further Experiments in Field Technic in Plot Tests. (Minn.-42) By A. C. Arny. Relation of Horse Nettle (Solanum Carolinense) to Leafspot of Tomato (Septoria lycopersici). (G-235) By Fred J. Pritchard and W. S. Porte. Pp. 427-505. Pls. 20, figs. 30. Price, 15 cents.

NOTE.—Volumes 1 to 4 of the Journal of Agricultural Research were published monthly, volumes 5 to 16 weekly, and volume 17 monthly. Beginning with volume 18, the issue is semimonthly. The Journal is distributed free only to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. It will not be sent free to individuals. The Superintendent of Documents will receive subscriptions for this publication, the price being \$3 a year for domestic circulation and \$4.25 a year for foreign circulation.

Experiment Station Record. Vol. 44, No. 7, May, 1921. E. W. Allen, Ph. D., Editor. Pp. 601-700.

NOTE.—The Record is a technical review of the world's scientific literature pertaining to agriculture. It is not intended for general distribution and its free distribution is restricted to persons connected with the agricultural colleges, experiment stations, and similar institutions, and to libraries and exchanges. It can not be sent free to individuals having no official connection with public institutions. The Superintendent of Documents will receive subscriptions for this publication, which is issued in two volumes a year, 10 numbers each, at 75 cents a volume. Foreign subscription, \$1.25 a volume.

The Monthly Crop Reporter. Vol. 7, No. 7, July, 1921. Pp. 73-88. (Bureau of Markets and Crop

Contains data relating to agriculture, including estimates of acreage, conditions, yields, prices, and value of crops and live stock.

ANNOUNCEMENT. Because of the small fund available for printing, it has been found necessary to drop from the mailing list of the Monthly Crop Reporter all names of persons who are not actively cooperating with the United States Department of Agriculture. Persons whose names are dropped may subscribe for this publication, through the Superintendent of Documents, Washington, D. C., at the domestic rate of 25 cents per year, and 40 cents per year to foreign address, payable only by postal money order or cash. No cheeks accepted.

The Market Reporter. Vol. 4, Nos. 1-5, inclusive, July, 1921. (Bureau of Markets and Crop Estimates.)
For free distribution to applicants who show the need for it and give the general nature of their business or occupation in connection with which this publication will be used.

The Market Reporter is the official marketing publication of the United States Department of Agriculture. It contains general, current, and statistical marketing information for important classes of agricultural products, both staple and perishable, which is of general interest and of permanent value alike to producers, dealers, and consumers.

Weekly News Letter.

Contains a weekly summary in popular form of the more important practical discoveries and recommendations of all bureaus of the department. Free list confined to department employees, official cooperators, and the press. May be purchased from the Superintendent of Documents, Government Printing Office, for 50 cents a year.

SOIL SURVEYS.

***All requests for soil surveys are referred to the Bureau of Soils for attention, the distribution being controlled by that bureau.

Soil Survey of Morgan County, Alabama. By Austin L. Patrick, In charge, Howard C. Smith, R. T. Avon Burke, A. M. O'Neal, jr., and Grove B. Jones. Pp. 46, pls. 2, figs. 2, map 1. (From F. O. Soils, 1918.) Price, 15 cents.

Soil Survey of Outagamie County, Wisconsin. By W. J. Geib and H. V. Geib, of the U. S. Department of Agriculture, and Marion C. Ford and Martin O. Tosterud, of the Wisconsin Geological and Natural History Survey. Pp. 42, fig. 1, map. (From F. O. Soils, 1918.) Price, 15 cents.

SERVICE AND REGULATORY ANNOUNCEMENTS—FOR SALE ONLY.

These contain only information, instructions, and notices governing the enforcement of the food and drugs act, meat inspection, 28-hour, and quarantine laws, and the various regulations of the department. Issued monthly by certain bureaus. Free distribution is limited to persons in the employ of the department, to public officials whose duties render it necessary for them to have such information, to journals especially concerned, and to manufacturers and firms whose business is affected by same. Others desiring copies are respectfully referred to the Superintendent of Documents, Government Printing Office, who has them for sale only at prices noted. them for sale only at prices noted.

Bureau of Animal Industry.—No. 169. Pp. 60. June 27, 1921. Price, 5 cents.

Same. No. 170. Pp. 61-68. July 20, 1921. Price, 5 cents.

Bureau of Chemistry, Supplement 114. (N. J. 9151-9200.) Pp. 107-144. July 25, 1921. Price, 10 cents.

PUBLICATIONS OF THE WEATHER BUREAU.

Publications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

Monthly Weather Review Vol. 49, No. 4. April, 1921. Pp. 183-270, figs. 43, charts 16. Price, 15 cents a copy, \$1.50 a year. Payable to the Superintendent of Documents.

Special Articles: Local Forecast Studies—Summer Rainfall. By T. A. Blair.—Tornadoes of April 15, 1921, in Arkansas and Texas. By W. C. Hickmon.—Local Storms in Mississippi. By R. T. Lindley.—The Tornadoes of April 16, 1921, in Alabama. By P. H. Smyth and J. W. Smith.—Tornadoes in Tennessee on April 16, 1921. By R. M. Williamson.—Correlation of Maximum Rain Intensities for Long and Short Time Intervals. By R. E. Horton.—Cloudburst Rainfall at Taborton, N. Y. August 10, 1920. By R. E. Horton and G. T. Todd.—The effect of Vegetative Evaporation on the Rate of Seasonal Temperature Changes. By R. H. Finch.—The Approximate Normal Temperature as a Function of the Latitude, Elevation, Time of Day, and Day of the Year. By F. L. West.—True Mean Temperature. By C. E. P. Brooks.—The Secular Variations of Climate. By J. Paeaskevopoulos.

National Weather and Crop and Snow and Ice Bulletin. Nos. 27, 28, 29, 30, July, 1921, reporting weather and crop conditions throughout the United States. Issued weekly. Price, 25 cents a year. Note.—This bulletin is furnished free of charge to public and educational institutions, libraries, newspapers, cooperative observers, weather correspondents, and to those who will post or display it for the general benefit of the public. To all others the price is 25 cents per year, payable to the Superintendent of Documents, Government Printing Office, Washington, D. C.

JOHN L. COBBS, Jr., Chief, Division of Publications.

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United States Department of Agriculture, MONTHLY LIST OF PUBLICATIONS.

[August, 1921.]

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FARMERS' BULLETINS-FOR FREE DISTRIBUTION.

NOTE.—As long as the department's somewhat limited supply of the current numbers of Farmers' Bulletins lasts they may be obtained by all applicants free of charge. They are also for sale at 5 cents per copy unless otherwise noted.

Swarm Control. By Geo. S. Demuth, Agricultural Assistant, Bee-Culture Investigations. Pp. 47, figs. 13. Contribution from the Bureau of Entomology. June, 1921. (Farmers' Bulletin 1198.)

In this bulletin the various phases of the swarm problem are discussed. Suitable for general distri-

Game Laws for 1921. A Summary of Federal, State, and Provincial Statutes. By Geo. A. Lawyer, Chief United States Game Warden, Frank L. Earnshaw, Assistant, Interstate Commerce in Game. Pp. 80. Contribution from the Bureau of Biological Survey. August, 1921. (Farmers' Bulletin 1235.) Suitable for general distribution.

DEPARTMENT BULLETINS-TECHNICAL.

The publications listed below are technical or scientific bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts.

A Study of the Factors Affecting Temperature Changes in the Container During the Canning of Fruits and Vegetables. By C. A. Magoon and C. W. Culpepper, Office of Horticultural and Pomological Investigations. Pp. 55, figs. 57. Contribution from the Bureau of Plant Industry. Aug. 17, 1921. (Department Bulletin 956.) Price, 15 cents.

A statement of results of experiments conducted to determine the relation of temperature changes in the container during the canning period, to the successful preservation of food.

Development of Tubers in the Potato. By Charles F. Clark, Horticulturist, Office of Horticultural and Pomological Investigators. Pp. 27, figs. 10. Contribution from the Bureau of Plant Industry. Aug. 22, 1921. (Department Bulletin 958.) Price, 5 cents.

Describes findings obtained from experiments conducted to determine the factors influencing the number and subsequent development of tubers.

The Relation of Water-Raking to the Keeping Quality of Cranberries. By Neil E. Stevens, Pathologist, and H. F. Bergman, formerly Scientific Assistant, Fruit Disease Investigations. Pp. 12. Contribution from the Bureau of Plant Industry. Aug. 15, 1921. (Department Bulletin 960.) Price, 5 cents.

This bulletin is based on investigational work in Wisconsin extending over three seasons, and deals with the water-raking problem only in its relation to the keeping quality of the fruit. Of interest to cranberry growers.

Standards of Labor on the Hill Farms of Louisiana. By M. Bruce Oates, Assistant Agriculturist, and L. A. Reynoldson, Junior Farm Economist, Section of Farm Organization. Pp. 27, figs. 7. Contribution from the Office of Farm Management and Farm Economics. Aug. 13, 1921. (Department Bulletin 961.) Price, 10 cents.

This bulletin is a statement of the prevailing standards of labor for crews of various sizes at field and crop work, and the labor requirements of crops per acre for the hillsections of Louisiana.

The Production of the Easter Lily in Northern Climates. By David Griffiths, Horticulturist, Office of Horticultural and Pomological Investigations. Pp. 31, figs. 14. Contribution from the Bureau of Plant Industry. (Professional Paper.) Aug. 12, 1921. (Department Bulletin 962.) Price, 10 cents.

A discussion of the possibilities of producing Easter lilies in northern climates, based on an experience of six years with plants in the vicinity of Washington, D. C. Of interest to florists and horticulturists.

The European Horse-Radish Webworm. By F. H. Chittenden, Entomologist in Charge, Truck-Crop Insect Investigations. Pp. 10, figs. 8. Contribution from the Bureau of Entomology. (Professional Paper.) Aug. 25, 1921. (Department Bulletin 966.) Price, 5 cents.

Describes the life history and habits of this pest and suggests methods of control.

Prices of Farm Products in the United States. By G. F. Warren. Pp. 72, figs. 13. Contribution from the Bureau of Markets and Crop Estimates. Aug. 26, 1921. (Department Bulletin 999.) Price, 20 cents.

Comparison of the rise and fall of prices during the three war periods, 1812, 1861, and 1918, with discussion of causes.

MISCELLANEOUS.

Regulations Governing Entrance to the Veterinary-Inspector Examination. Promulgated by the Secretary of Agriculture and approved by the President of the Civil Service Commission to indicate the requirements as to veterinary schools and colleges whose graduates are admitted to examinations for veterinary inspectors in the Bureau of Animal Industry. Effective on and after July 1, 1921. (Circular No. 128 (Revised), Office of the Secretary.) Price, 5 cents.

Rules and Regulations of the Secretary of Agriculture Under the Food Products Inspection Law of March 3, 1921. Pp. 11. August, 1921. (Circular 155, Office of the Secretary.) Price, 5 cents.

Repeals all former regulations.

Contents and Index to Department Bulletins Nos. 751-775. Prepared in the Division of Publications. 1921. Pp. 35

SERIALS.

Monthly List of Publications. Announcement of the publications issued by the Department of Agriculture. Sent regularly without charge to all who apply for it.

Journal of Agricultural Research. (För sale only.) Vol. 21, No. 8, July 15, 1921. Contents: Relation of Hardness and Other Factors to Protein Content of Wheat (Kans.-26). By Herbert F. Roberts.—Effects of Some Cucurbita Seeds on Animal Metabolism (N. J.-7). By Benjamin Masurovsky.—A Constant Temperature Bath for Heating Blood Serum (A-59). By R. R. Henley.—Assimilation of Nitrogen, Phosphorus, and Potassium by Corn When Nutrient Salts Are Confined to Different Roots (B-17). By P. L. Gile and J. O. Carrero.—Reduction in the Strength of the Mercuric-Chlorid Solution Used for Disinfecting Sweet Potatoes (G-236). By J. L. Weimer.—Catalase, Hydrogen-ion Concentration, and Growth in the Potato Wart Disease (G-237). By Freeman Weiss and R. B. Harvey.—Effect of Crowngall Inoculations on Bryophyllum (G-238). By Erwin F. Smith.—Effect of Length of Day on Seedlings of Alfalfa Varieties and the Possibility of Utilizing This as a Practical Means of Identification (G-239). By R. A. Oakley and H. L. Westover. Pp. 507-607, pls. 22, figs. 4. Price, 15 cents.

Same, Vol. 21, No. 9, August 1, 1921. Contents: Studies in the Physiology of Parasitism with Special Reference to the Secretion of Pectinase by Rhizopus Tritici (G-

240). By L. L. Harter and J. L. Weimer.—Respiration and Carbohydrate Changes Produced in Sweet Potatoes by Rhizopus Tritici (G-241).—Wound-Cork Formation in the Sweet Potato (G-242). By J. L. Weimer and L. L. Harter.—Two Sclerotium Diseases of Rice (G-243). By W. H. Tisdale.—A Biological Study of the Red Date-Palm Scale, Phoenicococcus Marlatti (K-98). By Arthur D. Borden.—Red Date-Palm Scale, Phoenicococcus Marlatti: A Technical Description (K-99). By Harold Morrison.—Some Observations Regarding Eosinophiles (Nev.-1). By Lewis H. Wright.—A Souring of Beef Caused by Bacillus Megatherium (A-60). By Hubert Bunyea. Pp. 609-698, pls. 13, figs. 3. Price, 15 cents.

Note.—Volumes 1 to 4 of the Journal of Agricultural Research were published monthly, volumes 5 to 16 weekly, and volume 17 monthly. Beginning with volume 18, the issue is semimonthly. The Journal is distributed free only to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. It will not be sent free to individuals. The Superintendent of Documents will receive subscriptions for this publication, the price being 15 cents a single copy, \$3 a year for domestic circulation, and \$4.25 a year for foreign circulation.

Experiment Station Record. Vol. 44. No. 8, June, 1921. E. W. Allen, Ph. D., Editor. Pp. 701-800. Price, 10 cents.

Same, Vol. 44, No. 9. Abstract Number. Aug. 10, 1921. Pp. 801-900. Price, 10 cents.

Same, Vol. 45, No. 1. July, 1921. Pp. 1-100. Price, 10 cents.

Note.—The Record is a technical review of the world's scientific literature pertaining to agriculture. It is not intended for general distribution and its free distribution is restricted to persons connected with the agricultural colleges, experiment stations, and similar institutions, and to libraries and exchanges. It can not be sent free to individuals having no official connection with public institutions. The Superintendent of Documents will receive subscriptions for this publication, which is issued in two volumes a year, 10 numbers each, at 75 cents a volume.

The Monthly Crop Reporter. Vol. 7, No. 8, August, 1921. Pp. 89-104. (Bureau of Markets and Crop Estimates.)

Contains data relating to agriculture, including estimates of acreage, conditions, yields, prices, and value of crops and live stock.

ANNOUNCEMENT. Because of the small fund available for printing, it has been found necessary to drop from the mailing list of the Monthly Crop Reporter all names of persons who are not actively cooperating with the United States Department of Agriculture. Persons whose names are dropped may subscribe for this publication, through the Superintendent of Documents, Washington, D. C., at the domestic rate of 25 cents per year, and 40 cents per year to foreign address, payable only by postal money order or cash. No checks accepted.

The Market Reporter. Vol. 4, Nos. 6-9, inclusive, August, 1921. (Bureau of Markets and Crop Estimates.) For free distribution to applicants who show the need for it and give the general nature of their business or occupation in connection with which this publication will be used.

Same. Index to Vol. III, January-June, 1921.

Weekly News Letter.

Contains a weekly summary in popular form of the more important practical discoveries and recommendations of all bureaus of the department. Free list confined to department employees, official cooperators, and the press. May be purchased from the Superintendent of Documents, Government Printing Office, for 50 cents a year.

SOIL SURVEYS.

All requests for soil surveys are referred to the Bureau of Soils for attention, the distribution of same being controlled by that bureau.

Soil Survey of Cedar County, Iowa. By A. M. O'Neal, jr., and D. S. Gray. Pp. 35, fig. 1, map. (From F. O. Soils, 1919.) Price, 15 cents.

Soil Survey of St. Francois County, Missouri. By H. H. Krusekopf, E. W. Knobel, and C. E. Deardorff, of the University of Missouri. Pp. 32, pls. 2, fig. 1, map. (From F. O. Soils, 1918.) Price, — cents.

Soil Survey of Sheridan County, Nebraska. By F. A. Hayes and Louis A. Welfanger, of the U. S. Department of Agriculture, and H. L. Bedell, L. Britton, S. C. H. Taylor, and F. M. Deutsch, of the Nebraska Soil Survey. Pp. 60, pls. 2, fig. 1, map. (From F. O. Soils, 1918.) Price, 40 cents.

Soil Survey of Fayette County, W. Va. By J. A. Kerr. Pp. 30, figs. 1, map. (From F. O. Soils, 1919.) Price, 20 cents.

SERVICE AND REGULATORY ANNOUNCEMENTS—FOR SALE ONLY.

These contain only information, instructions, and notices governing the enforcement of the food and drugs act, meat inspection, 28-hour, and quarantine laws, and the various regulations of the department. Issued monthly by certain bureaus. Free distribution is limited to persons in the employ of the department, to public officials whose duties render it necessary for them to have such information, to journals especially concerned, and to manufacturers and firms whose business is affected by same. Others desiring copies are respectfully referred to the Superintendent of Documents, Government Printing Office, who has them for sale only at prices noted.

Bureau of Animal Industry. No. 171. July, 1921. Pp. 69-76. Price, 5 cents.

Bureau of Chemistry. Supplement 115 (N. J. 9201-9250). Pp. 145-180. Aug. 12, 1921. Price, 10 cents.

Same. Supplement 116 (N. J. 9251-9300). Pp. 181-222. Aug. 19, 1921. Price, 10 cents.

PUBLICATIONS OF THE WEATHER BUREAU.

Publications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

Monthly Weather Review. Vol. 49, No. 5. May, 1921. Pp. 271–326. Figs. 22, charts 13. Price, 15 cents a copy, \$1.50 a year. Payable to the Superintendent of Documents.

Special articles: Temperature survey of the Salt River Valley, Arizona. By J. H. Gordon.—The cool breeze of the shadow of the cumulus. By W. J. Humphreys.—Bibliographic notes on the temperature charts of the United States. By R. Dec. Ward.—Level of constant air density. By W. J. Humphreys.—A Review of some of the literature on the sun-spot pressure relations. By A. J. Henry.—Vapor pressure and humidity diagram. By R. E. Horton.—A psychrometric chart for determining the dewpoint and relative humidity. By R. B. Smith.—A new correction scale for mercurial barometers. S. P. Fergusson.—Relations between weather and mental and physical condition of man presented on the basis of statistical research. Translation by W. W. Reed.—Computing the cotton crop from weather records and ginning reports. By J. B. Kincer.—Bicclimatic zones determined by meteorological data. By A. D. Hopkins.—Indicator precipitation-stations for predicting stream discharge. By H. L. Stoner.

National Weather and Crop and Snow and Ice Bulletin. Nos. 31, 32, 33, 34, 35, August, 1921, reporting weather and crop conditions throughout the United States. Issued weekly. Price, 25 cents a year.

Note.—This bulletin is furnished free of charge to public and educational institutions, libraries, newspapers, cooperative observers, weather correspondents, and to those who will post or display it for the general benefit of the public. To all others the price is 25 cents per year, payable to the Superintendent of Documents, Government Printing Office, Washington, D. C.

JOHN L. COBBS, Jr., Chief, Division of Publications.

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United States Department of Agriculture,

MONTHLY LIST OF PUBLICATIONS.

[SEPTEMBER, 1921.]

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Send all remittances to the Superintendent of Documents direct. His office is not a part of the Department of Agriculture.

FARMERS' BULLETINS-FOR FREE DISTRIBUTION.

Note.—As long as the department's somewhat limited supply of the current numbers of Farmers' Bulletins lasts they may be obtained by all applicants free of charge. They are also for sale at 5 cents per copy unless otherwise noted.

Judging Sheep. By G. H. Bedell, Animal Husbandry Division. Pp. 23, figs. 27. Contribution from the Bureau of Animal Industry. July, 1921. (Farmers' Bulletin 1199.)

Suitable for general distribution.

Floors and Floor Coverings. Prepared in the Office of Home Economics, States Relations Service. Pp. 36, figs. 2. Contribution from the States Relations Service. August, 1921. (Farmers' Bulletin, 1219.) Suitable for general distribution.

DEPARTMENT BULLETINS-TECHNICAL.

The publications listed below are technical or scientific bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts.

Life History of the Codling Moth in the Grand Valley of Colorado. By E. H. Siegler, Entomologist, and H. K. Plank, Scientific Assistant, Fruit Insect Investigations, in Cooperation with the Colorado Agricultural Experiment Station. Pp. 119, pls. 7, figs. 36. Contribution from the Bureau of Entomology. (Professional Paper.) September 20, 1921. (Department Bulletin 932.) Price, 25 cents.

Describes the life history and habits of this pest.

Composition of Cotton Seed. By Charles F. Creswell, formerly Specialist in Marketing Vegetable Oils, Bureau of Markets, and George L. Bidwell, Chemist in Charge Cattle Food Laboratory, Miscellaneous Division, Bureau of Chemistry. Pp. 221, pl. 1, map 11. Joint Contribution from the Bureau of Markets and Bureau of Chemistry. September 10, 1921. (Department Bulletin 948.) Price, 25 cents.

Cost of Producing Sugar Beets in Utah and Idaho, 1918–1919. By L. A. Moorhouse, Associate Farm Economist, Office of Farm Management and Farm Economics, and S. B. Nuckels, Agriculturist, Sugar-Plant Investigations, Bureau of Plant Industry. Pp. 41, figs. 13. Contribution from the Office of Farm Management and Farm Economics. September 21, 1921. (Department Bulletin 963.) Price, 10 cents. Of interest to sugar-beet growers.

- Garden Flea-Hopper in Alfalfa and Its Control. By A. H. Beyer, Scientific Assistant, Cereal and Forage Insect Investigations. Pp. 27, figs. 17. Contribution from the Bureau of Entomology. (Professional Paper.) September 20, 1921. (Department Bulletin 964.) Price, 10 cents. Of interest to gardeners.
- Manufacture of Cow's-Milk Roquefort Cheese. By K. J. Matheson, Dairy Manufacturing Specialist, Dairy Division. Pp. 28, figs. 11. Contribution from the Bureau of Animal Industry. August 29, 1921. (Department Bulletin 970.) Price, 5 cents.

 Describes method of manufacture, likewise some of the difficulties that may be encountered in manufacturing cow's milk Roquefort characteristics.

facturing cow's-milk Roquefort cheesa.

Unit Requirements for Producing Market Milk in Eastern Nebraska. By J. B. Bain, Dairy Husband, man, G. E. Braun, Market Milk Specialist, Dairy Division, and E. A. Gannon, Cooperative Investigator-Nebraska Agricultural Experiment Station. Pp. 16, figs. 2. Contribution from the Bureau of Animal Industry. September 19, 1921. (Department Bulletin 972.) Price 5 cents. Of interest and value to dairymen.

MISCELLANEOUS.

- Sugar Cane in St. Croix. By Longfield Smith, Agronomist in Charge. Pp. 23, pl. 1, figs. 2. September 12, 1921. (Bulletin No. 2, Virgin Islands Agricultural Experiment Station.) Price, 5 cents.
- Treatment of Ornamental White Pines infected with Blister Rust. By J. F. Martin, Forest Pathologist, and G. F. Gravatt and G. B. Posey, Assistant Pathologists. Pp. 20, figs. 12. Contribution from the Bureau of Plant Industry. August, 1921. (Department Circular 177.) Price, 5 cents.
- The "Alkali Disease" of Live Stock in the Pecos Valley. By C. Dwight Marsh, Physiologist in Charge, and Glenwood C. Roe, Assistant in Poisonous Plant Investigations. Pp. 8, figs. 4. Contribution from the Bureau of Animal Industry, August, 1921. (Department Circular 180.) Price, 5 cents.

 Describes a disease locally trying and Garage which affects horses, cattle, and sheep in the Pecos Valley of New Mexico and Texas.
- The Well-Planned Kitchen. Prepared by the Office of Home Economics. States Relations Service. September, 1921. (Department Circular 189.) Price, 5 cents.
- Use of Explosives in Blasting Stumps. By George R. Boyd, Senior Drainage Engineer, Bureau of Public Roads. Pp. 15, figs. 5. Contribution from the Bureau of Public Roads. September, 1921. (Department Circular 191.) Price, 5 cents.
- Inventory of Seeds and Plants Imported by the Office of Foreign Seed and Plant Introduction during the period from October 1 to December 31, 1916. Pp. 117, pls. 8. September 14, 1921. (Inventory No. 49; Nos. 43391 to 43979. Bureau of Plant Industry.) Price, 25 cents.

SERIALS.

- Journal of Agricultural Research. (For sale only.) Vol. 21, No. 10, Aug. 15, 1921. Contents: A Fungus Disease Suppressing Expression of Awns in a Wheat-Spelt Hybrid. (Ohio-3.) By Lloyd Thatcher.—Effect of Ammonium Sulphate upon Plants in Nutrient Solutions Supplied with Ferric Phosphate and Ferrous Sulphate as Sources of Iron. (N. J.-8.) By Linus H. Jones and John W. Shive.—Dispersion of Flies by Flight. (K.-100.) By F. C. Bischopp and E. W. Laake.—Bacteriological and Chemical Studies of Different Kinds of Silage. (Pa.-12.) By Charles A. Hunter.—Sandy Crystals in Ice Cream: Their Separation and Identification. (A.-61.) By Harper F. Zoller and Owen E. Williams. Pp. 699-795. Pls. 4, figs. 17. Price, 15 cents.
- Same. Vol. 21, Mo. 11, September 1, 1921. Contents: Solenopotes capillatus, a Sucking Louse of Cattle Not Heretofore Known in the United States. (K-101) By F. C. Bishopp.—Rate of Culm Formation in Bromus inermis. (N. Dak.-1) By L. R. Waldron.—Reliability of the Nail Test for Predicting the Chemical Composition of Green Sweetcorn. (Md.-4) By Charles O. Appleman.—Transmission of Some Wilt Diseases in Seed Potatoes. (Oreg.-6) By M. B. McKay.—Correlation and Growth in the Branches of Young Pear Trees. (Calif.-31.) By H. S. Reed. Pp. 797-876, pls. 4, figs. 23. Price, 15 cents.
- Same. Contents and Index of volume 29. Pp. XX, 889-907. March, 1921. Price, 5 cents.
 - NOTE.—Volumes 1 to 4 of the Journal of Agricultural Research were published monthly, volumes 5 to 16 weekly, and volume 17 monthly. Beginning with volume 18, the issue is semimonthly. The Journal is distributed free only to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. It will not be sent free to individuals. The Superintendent of Documents will receive subscription for this publication, the price being 15 cents a single copy. \$3 a year for demostic circulation, and \$4.25 cents a single copy. for this publication, the price being 15 cents a single copy, \$3 a year for domestic circulation, and \$4.25 a year for foreign circulation.
- Monthly List of Publications. Announcement of the publications issued by the Department of Agriculture. Sent regularly without charge to all who apply for it.
- The Monthly Crop Reporter. Vol. 7, No. 9, September, 1921. Pp. 105-120. (Bureau of Markets and Crop Estimates.)

Contains data relating to agriculture, including estimates of acreage, conditions, yields, prices, and value of crops and live stock.

- ANNOUNCEMENT. Because of the small fund available for printing, it has been found necessary to drop from the mailing list of the Monthly Crop Reporter all names of persons who are not actively cooperating with the United States Department of Agriculture. Persons whose names are dropped may subscribe for this publication, through the Superintendent of Documents, Washington, D. C., at the domestic rate of 25 cents per year, and 40 cents per year to foreign address, payable only by postal money order or cash. No checks accepted.
- The Market Reporter. Vol. 4, Nos. 10-13, inclusive, September, 1921. (Bureau of Markets and Crop Estimates.) For free distribution to applicants who show the need for it and give the general nature of their business or occupation in connection with which this publication will be used.

Weekly News Letter.

Contains a weekly summary in popular form of the more important practical discoveries and recommendations of all bureaus of the department. Free list confined to department employees, official cooperators, and the press. May be purchased from the Superintendent of Documents, Government Printing Office, for 50 cents a year.

SOIL SURVEYS.

- All requests for soil surveys are referred to the Bureau of Soils for attention, the distribution of same being controlled by that bureau.
- Reconnoissance Soil Survey of the Upper San Joaquin Valley, California. By J. W. Nelson, In Charge, and Walter C. Dean, of the University of California, and E. C. Eckmann, of the U. S. Department of Agriculture. Pp. 116, pls. 4, fig. 1, map. (From F. O. Soils, 1917.) Price, cents.
- Soil Survey of Dakota County, Nebraska. By F. A. Hayes and H. L. Bedell. Pp. 42, fig. 1, map. (F. O. Soils, 1919.) Price, cents.
- Soil Survey of Meigs County, Tennessee. By A. T. Sweet and J. H. Agee. Pp. 38, fig. 1, map. (From F. O. Soils 1919.) Price, cents.

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Bureau of Animal Industry. No. 172. August, 1921. Pp. 77-86. Price, 5 cents.

Bureau of Biological Survey. No. 42. Hunting of Migratory Game Birds on Nine-Pipe and Pablo Reservations, Montana. Pp. 1. September 12, 1921. Price, 5 cents.

Same. No. 43, Regulations for the Protection of Land Fur-Bearing Animals in Alaska. Pp. 4, September 10, 1921. Price, 5 cents.

Bureau of Chemistry. Supplement 117 (N. J. 9301-9350). Pp. 223-258. September 24, 1921. Price, 10 cents.

Same. Index to Nos. 1 to 24, 1921. Pp. 127-172. September 9, 1921. Price, 5 cents.

Federal Horticultural Board No. 70. Pp. 1-94. January-June, 1921. With contents. September 23, 1921. Price, 5 cents.

SEPARATES.

European Corn Borer in American Corn. By W. R. Walton, Bureau of Entomology. Pp. 20, figs. 7. (Separate 831 Yearbook 1920.) Price, 5 cents.

Science Seeks the Farmer. By L. C. Everard, Chief Editor, Division of Publications. Pp. 6, figs. 2. (Separate 832, Yearbook 1920.) Price, 5 cents.

Home Demonstration Bears Fruit in the South. By O. B. Martin, States Relations Service. Pp. 7. (Separate 833, Yearbook, 1920.) Price, 5 cents.

Know Your Markets. By W. A. Wheeler, Bureau of Markets. Pp. 20, figs. 6. (Separate 834, Yearbook 1920.) Price, 5 cents.

Wood for the Nation. By W. B. Greeley, Forest Service. Pp. 12, figs. 4. (Separate 835, Yearbook 1920.) Price, 5 cents.

Conserving Our Wild Animals and Birds. By Edward A. Goldman, Bureau of Biological Survey. Pp. 16, figs. 9. Separate 836, Yearbook 1920.) Price, 5 cents.

Pig Parasites and Thumps. By B. H. Ransom, Bureau of Animal Industry. Pp. 6, figs. 3. (Separate 837, Yearbook 1920.) Price, 5 cents.

With the Irrigation Farmer. By Samuel Fortier, Bureau of Public Roads. Pp. 14, figs. 3. (Separate 839, Yearbook 1920.) Price, 5 cents.

Phosphorus in Fertilizer. By William H. Waggaman, Bureau of Soils. Pp. 7, figs. 3. (Separate 840, Yearbook 1920.) Price, 5 cents.

Runts and the Remedy. By John R. Mohler, Bureau of Animal Industry. Pp. 16, figs. 7. (Separate 841, Yearbook 1920.) Price, 5 cents.

Farm Help from the Birds. By W. L. McAtee, Bureau of Biological Survey. Pp. 18, figs. 8. (Separate 843, Yearbook 1920.) Price, 5 cents.

Helping Landless Farmers to Own Farms. By L. C. Gray, Office of Farm Management and Farm Economics. Pp. 18, figs. 3. (Separate 844, Yearbook 193).) Price, 5 cents.

Hunting Down Stock Killers. By W. B. Bell, Bureau of Biological Survey. Pp. 12, figs. 4. (Separate 845, Yearbook 1929.) Price, 5 cents.

The Cost of a Bushel of Wheat. By F. W. Peck, Farm Economist, Office of Farm Management and Farm Economics. Pp. 8, figs. 2. (Separate 846, Yearbook 1920.) Price, 5 cents.

How the Public Forests are Handled. By Herbert A. Smith, Forest Service. Pp. 22, figs. 12. (Separate 847, Yearbook 1930.) Price, 5 cents.

From Scrubs to Quality Stock. By D. S. Burch, Editor, Bureau of Animal Industry. Pp. 6, figs. 2. (Separate 848, Yearbook 1920.) Price, 5 cents.

Roads. By H. S. Fairbank. Bureau of Public Roads. Pp. 14, figs. 3. (Separate 849, Yearbook 1920.)
Price, 5 cents.

The March of Standardization. By Harold W. Samson, Bureau of Markets. Pp. 10, figs. 4. (Separate 850, Yearbook 1920.) Price, 5 cents.

Cows That Make the Income Climb. By J. E. McDowell, Bureau of Animal Industry. Pp. 12, figs. 4. (Separate 853, Yearbook 1920.) Price, 5 cents.

Milk for Midshipmen. By Ernest Kelly, Bureau of Animal Industry. Pp. 8, figs. 6. (Separate 857, Yearbook 1920.) Price, 5 cents.

Food for Farm Families. By Helen W. Atwater. States Relations Service. Pp. 14. (Separate 858, Yearbook 1920.) Price, 5 cents.

Boys' and Girls' Clubs Enrich Country Life. By C. B. Smith and George E. Farrell, States Relations Service. Pp. 10, figs. 5. (Separate 859, Yearbook 1920.) Price, 5 cents.

PUBLICATIONS OF THE WEATHER BUREAU.

Publications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

Monthly Weather Review. Vol. 49, No. 6, June 1921. Pp. 327-378, figs. 19, Charts 11. Price, 15 cents a copy, \$1.50 a year. Payable to the Superintendent of Documents.

Special articles: Kona Storms. By L. H. Daingerfield.—General survey of the meteorological problems of the Pan-Pacific counties. By L. H. Daingerfield.—Meteorological centers of action in the North Pacific Ocean. By E. A. Beals.—Droughts with cirrus clouds moving from the north. By D. F. Manning with discussion by A. J. Henry.—Hailstorm at Wausau, Wis., May 22, 1921. By E. F. Simes.—Effects of change of position of instrument shelter upon minimum temperature records at Escondido, Calif. By H. F. Alciatore.—Altitudes of the bases of lower clouds as determined from kite and balloon observations. By O. L. Lewis.—The Argonne Battle Cloud. By B. M. Varney.—On the frequency of fogs in the eastern Sahara. By J. Tilho.—On the differences between summer daytime and nighttime precipitation in the United States. By W. J. Humphreys.

National Weather and Crop and Snow and Ice Bulletin. Nos. 36, 37, 38, 39, September, 1921, reporting weather and crop conditions throughout the United States. Issued weekly. Price, 25 cents a year Note.—This bulletin is furnished free of charge to public and educational institutions, libraries, newspapers, cooperative observers, weather correspondents, and to those who will post or display it for the general benefit of the public. To all others the price is 25 cents per year, payable to the Superintendent of Documents, Government Printing Office, Washington, D. C.

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MONTHLY LIST OF PUBLICATIONS.

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FARMERS' BULLETINS-FOR FREE DISTRIBUTION.

Note.—As long as the department's somewhat limited supply of the current numbers of Farmers' Bulletins lasts they may be obtained by all applicants free of charge. They are also for sale at 5 cents per copy unless otherwise noted.

How to Select Foods. 1. What the body Needs. By Caroline I. Hunt and Helen W. Atwater. Pp. 15, fig. 1. Contribution from the States Relations Service. Revised October, 1921. (Farmers' Bulletin 808). For general distribution.

The Fowl Tick and How Premises May Be Freed from It. By F. C. Bishopp, Entomologist, Investif gations of Insects Affecting the Health of Animals. Pp. 16, figs. 9. Contribution from the Bureau of Entomology, Revised, October, 1921. (Farmers' Bulletin 1070.) Entomology. Revised, Oc For general distribution.

Operating a Home Heating Plant. By A. M. Daniels, Assistant Mechanical Engineer, Division of Agricutural Engineering. Pp. 28, figs. 8. Contribution from the Bureau of Public Roads. Revised, September, 1921. (Farmers' Bulletin 1194.) Suitable for general distribution.

Motor Trucks on Eastern Farms. By H. R. Tolley, Agricultural Engineer, and L. M. Church, Assistant in Agricultural Engineering. Pp. 23, figs. 10. Joint contribution from the Office of Farm Management and the Bureau of Public Roads. 1921. (Farmers' Bulletin 1201.)

This bulletin is based on the experience of 753 farmers in the Eastern States and is intended to aid other farmers in that section in determining whether or not the use of motor trucks would be to their

advantage.

Planting and Care of Street Trees. By F. L. Mulford, Horticulturist, Office of Horticultural and Pomological Investigations. Pp. 25, figs. 25. Contribution from the Bureau of Plant Industry. August, 1921. (Farmers' Bulletin 1209.)
Suitable for general distribution.

Home Canning of Fruits and Vegetables. Pp. 50, figs. 14. Contribution from the States Relations Service. October, 1921. (Farmers' Bulletin 1211.)

Is intended to replace Farmers' Bulletin 839 "Home Canning by the One Period Cold-Pack Method" and 853 "Home Canning of Fruits and Vegetables," as far as home canning of fruits and vegetables is

concerned.

The Potato Leafhopper and Its Control. By J. E. Dudley, Jr., Scientific Assistant, Truck-Crop Insect Investigations. Pp. 16, figs. 14. Contribution from the Bureau of Entomology, 1921. (Farmers'

Describes a serious and costly enemy of potato, bean, sugar beet, and other crops in the North Central and Northeastern States, and suggests methods of control.

Take-All of Wheat and Its Control. By Harry B. Humphrey, Pathologist in Charge, Aaron G. Johnson, Pathologist, and Harry H. McKinney, Assistant Pathologist, Cereal-Disease Investigations, Office of Cereal Investigations. Pp. 12, figs. 5. Contribution from the Bureau of Plant Industry. August, 1921. (Farmers' Bulletin 1226.)

A description of the disease with suggested methods of control.

Seed Marketing Hints for the Farmer. By George C. Edler, Specialist in Marketing Seeds. figs. 14. Contribution from the Bureau of Markets. October, 1921. (Farmers' Bulletin 1232.) Suitable for general distribution.

Laws Relating to Fur-Bearing Animals, 1921. A Summary of Laws in the United States, Canada, and Newfoundland, Relating to Trapping, Open Seasons, Propagation, and Bounties. By George A. Lawyer, Chief United States Game Warden, and Frank L. Earnshaw, Assistant, Interstate Commerce in Game. Pp.31. Contribution from the Bureau of Biological Survey. September, 1921. (Farmers' Bulletin 1238.) For general distribution.

The Peach Borer: How to Prevent or Lessen Its Ravages. By A. L. Quaintance, Entomologist in Charge, Fruit Insect Investigations. Pp. 14, figs. 12. Contribution from the Bureau of Entomology. October, 1921. (Farmers' Bulletin 1246.)

This bulletin treats of the paradichlorobenzene treatment for the peach borer, and is suitable for

general distribution.

DEPARTMENT BULLETINS-TECHNICAL.

The publications listed below are technical or scientific bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts.

Western Sneezeweed (Helenium Hoopesii) as a Poisonous Plant. By C. Dwight Marsh, Physiologist in Charge of Investigations of Stock Poisoning by Plants, A. B. Clawson, Physiologist, James F. Couch, Pharmacological Chemist, and Hadleigh Marsh, Veterinary Inspector. Pp. 46, pls. 2, figs. 5. Contribution from the Bureau of Animal Industry. (Professional Paper.) Oct. 11, 1921. (Department Bulletin 947.) Price, 10 cents.

A description of the weed and its effect upon stock when eaten. Of interest to western stock raisers.

Standard and Tentative Methods of Sampling and Testing Highway Materials. Recommended by the Second Conference of State Highway Testing Engineers and Chemists held at Washington, D. C., February 23 to 27, 1920. Pp. 98, figs. 37. Contribution from the Office of Public Roads. Oct. 10, 1921. (Department Bulletin 949.) Price, 25 cents.

A technical publication of interest to Engineers and Chemists generally.

Experiments and Suggestions for the Control of the Codling Moth in the Grand Valley of Colorado.

By E. H. Siegler, Entomologist, and H. K. Plank, Scientific Assistant, Fruit Insect Investigations, in cooperation with the Colorado Agricultural Experiment Station. Pp. 38, pls. 2. Contribution from the Bureau of Entomology. (Professional Paper.) Oct. 8, 1921. (Department Bulletin 959.) Price, 10 cents

Of interest to fruit growers in the Grand Valley of Colorado.

Control of the Argentine Ant in California Citrus Orchards. By R. S. Woglum, Entomologist, and A. D. Borden, Scientific Assistant, Fruit Insect Investigations. Pp. 43, figs. 21. Contribution from the Bureau of Entomology. Oct. 18, 1921. (Department Bulletin 965.) Price, 10 cents. Of interest to citrus fruit growers generally.

Results of Work on Blister Beetles in Kansas. By F. B. Milliken, Scientific Assistant, Truck-Crop Insect Investigations. Pp. 26, figs. 22. Contribution from the Bureau of Entomology. (Professional Paper.) Oct. 14, 1921. (Department Bulletin 967.) Price, 10 cents.

Describes this insect, its economic importance, and suggests control measures.

The Mexican Whorled Milkweed (Asclepias Mexicana) as a Poisonous Plant. By C. Dwight Marsh. Physiologist in Charge of Investigations of Stock Poisoning by Plants, and A. B. Clawson, Physiologist, Pathological Division. Pp. 16, pls. 2, fig. 1. Contribution from the Bureau of Animal Industry. (Professional Paper.) Oct. 6, 1921. (Department Bulletin 969.) Price, 5 cents. Describes a plant poisonous to stock, and the effects produced when eaten.

Directions for Blueberry Culture, 1921. By Frederick V. Coville, Botanist. Pp. 24, pls. 29. Contribution from the Bureau of Plant Industry. (Professional Paper.) Oct. 15, 1921. (Department Bulletin 974.) Price, 30 cents.

A revision of Department Bulletin 334, and suitable for general distribution.

Marketing Hay at Country Points. By H. B. McClure Specialist in Marketing Hay and G. A. Collier

Marketing Hay at Country Points. By H. B. McClure, Specialist in Marketing Hay, and G. A. Collier, Investigator in Marketing Hay. Pp. 27, fig. 1. Contribution from the Bureau of Markets and Crop Estimates. Oct. 18, 1921. (Department Bulletin 977). Price, 5 cents.

Of interest to persons engaged in growing and marketing hay and to dealers in feed stuff.

Marketing Hay Through Terminal Markets. By G. A. Collier, Investigator in Hay Marketing, and H. B. McClure, Specialist in Hay Marketing. Pp. 52, figs. 6. Contribution from the Bureau of Markets and Crop Estimates. Oct. 22, 1921. (Department Bulletin 979.) Price, 10 cents. Of interest to growers of hay and to dealers in feed stuffs.

Pine-Oil and Pine-Distillate Product Emulsions: Method of Production, Chemical Properties, and Disinfectant Action. By L. P. Shippen, Bacteriologist, and E. L. Griffin, Assistant Chemist, Insecticide and Fungicide Laboratory, Miscellaneous Division, Bureau of Chemistry. Pp. 16. Contribution from the Bureau of Chemistry and the Insecticide and Fungicide Board. Oct. 7, 1921. (Department Bulletin 989.) Price, 5 cents.

A technical publication of interest to Chemists generally.

Preliminary Manufacturing Tests of the Official Cotton Standards of the United States for Color for Upland Tinged and Stained Co tton. By W. R. Meadows, Cotton Technologist, and W. G. Blair, Specialist in Cotton Testing. Pp. 12. Contribution from the Bureau of Markets and Crop Estimates. (Professional Paper.) Oct. 20, 1921. (Department Bulletin 990.) Price, 5 cents. Of interest to manufacturers of cotton goods.

Crop Rotation and Cultural Methods at Edgeley, North Dakota. By John S. Cole, Agriculturist, Office of Dry-Land Agriculture Investigations. Pp. 24, figs. 4. Contribution from the Bureau of Plant Industry. Oct. 17, 1921. (Department Bulletin 991.) Price, 5 cents.

Of interst to dry-land farmers near the humid areas.

The Composition of California Lemons. By E. M. Chace, chemist in charge, and C. P. Wilson and C. G. Church, assistant chemists, Laboratory of Fruit and Vegetable Chemistry. Pp. 18, figs. 2. Contribution from the Bureau of Chemistry. Oct. 15, 1921. (Department Bulletin 993.) Price, 5 cents. Of interest to lemon growers and to manufacturers of lemon by-products.

The Beet Sugar Industry in the United States in 1920. By C. O. Townsend, Pathologist in Charge, Office of Sugar-Plant Investigations. Pp. 58, pls. 10. Contribution from the Bureau of Plant Industry. Oct. 14, 1921. (Department Bulletin 995.)

A discussion of the beet-sugar industry in all its phases, together with a list of beet-sugar mills in the

United States.

Flushing and Other Means of Increasing Lamb Yields. By F. R. Marshall and C. G. Potts, Animal Husbandry Division. Pp. 14. Contribution from the Bureau of Animal Industry. Oct. 12, 1921. (Department Bulletin 996.) Price, 5 cents. Of interest to live stock owners generally.

MISCELLANEOUS.

Forest Experiment Stations. By Earle H. Clapp, Assistant Forester, Forest Service. Pp. 34, figs. 9. October, 1921. (Circular 183, Office of the Secretary.) Price, 10 cents.

Describes the location, work, and need of Forest Experiment Stations.

The Home Garden for Club Members. By Glen Briggs, Agronomist amd Horticulturist. Pp. 15, pls. 4-Oct. 15, 1921. (Extension Circular No. 2, Guam Agricultural Experiment Station.)

Prepared for distribution among members of boys and girls clubs in the Island of Guam only. Not available for distribution by the Department.

Status and Results of Home Demonstration Work, Northern and Western States, 1920. By Florence E. Ward, In Charge Extension Work With Women. Pp. 30, figs. 6. Contribution from the States Relations Service. 1921. (Department Circular 178.) Price, 5 cents.

Status and Results of County Agent Work, Northern and Western States, 1920. By W. A. Lloyd, In Charge County Agent Work. Pp. 36, figs. 9. Contribution from the States Relations Service. Sept., 1921. (Department Circular 179.) Price, 5 cents.

Handbook for Campers in the National Forests in California. Pp. 48. Contribution from the Fores t Service. September, 1921. (Department Circular 185.) Price, 5 cents.

Fulghum Oats. By T. R. Stanton, Agronomist in Oat Investigations, Office of Cereal Investigations. Pp. 11, figs. 2. Contribution from the Bureau of Plant Industry. September, 1921. (Department Circular 193) Price, 5 cents.

Kanred Wheat. By J. Allen Clark, Agronomist in Charge of Western Wheat Investigations, Bureau of Plant Industry, and S. C. Salmon, in Charge of Farm-Crop Production, Kansas Agricultural Experiment Station. Pp. 13 figs. 3. Contribution from the Bureau of Plant Industry. September, 1921. (Department Circular 194.) Price, 5 cents.

Describes a new hard red winter wheat recommended for the hard, winter red wheat belt, particularly

Kansas and Nebraska.

Directory of Officials and Organizations Concerned with the Protection of Birds and Game, 1921, Contribution from the Bureau of Biological Survey. Oct. 18, 1921. (Department Circular 196.)

Monthly List of Publications. Announcement of the publications issued by the Department of Agriculture. Sent regularly without charge to all who apply for it.

culture. Sent regularly without charge to all who apply for it.

Journal of Agricultural Research. (For sale only.) Vol. 22, No. 1. October 1, 1921. Contents: Occurrence of Quercetin in Emerson's Brown-Husked Type of Maize. (G-244.) By Charles E. Sando and H. H. Bartlett.—Biological Analysis of the Seed of the Georgia Velvet Bean, Stilzolobium deeringianum. (Ark-1.) By Barnett Sure and J. W. Read.—Effect of Soil Temperature upon the Development of Nodules on the Roots of Certain Legumes. (G-245.) By Fred Reuel Jones and W. B. Tisdale.—Influence of the Period of Transplanting Western White Pine Seedlings upon Their Behavior in Nursery and Plantation. (F-6.) By E. C. Rogers.—A Dryrot Canker of Sugar Beets. (Utah-14.) By B. L. Richards. Pp. 1-52, pls. 9, figs. 26. Price, 15 cents.

Same, Vol. 22, No. 2, October 8, 1921. Contents: Comparative Vigor of F₁ Wheat Crosses and Their Parents. (Minn.-43.) By Fred Griffee.—Temperature and Humidity Studies of some Fusaria Rots of the Irish Potato. (Nebr.-3.) By R. W. Goss.—Black-leg Potato Tuber-Rot under Irrigation. (G-246.) By M. Shapovalov and H. A. Edson.—Microscopic Study of Bacteria in Cheese. (N. Y. Geneva-6.) By G. J. Hucker.—Further Studies on Relation of Sulphates to Plant Growth and Composition. (Oreg.-7.) By Harry G. Miller.—Soybean Mosaic. (Ind.-10.) By Max W. Gardner and James B. Kendrick. Pp. 53-114, pls. 10. Price, 15 cents.

Same, Vol. 22, No. 3, October 15, 1921. Contents: Influence of the Plane of Nutrition on the Maintenance

Same, Vol. 22, No. 3, October 15, 1921. Contents: Influence of the Plane of Nutrition on the Maintenance Requirement of Cattle. (Mo.-5.) By F. B. Mumford, A. G. Hogan, and W. D. Salmon.—Turnip Mosaic. (Ind.-11.) By Max W. Gardner and James B. Kendrick.—Hydrocyanic Acid in Sudan Grass. (Kans.-27.) By C. O. Swanson.—Nutrient Requirements of Growing Chicks: Nutritive Deficiencies of Corn. (Nebr.-4.) By F. E. Mussehl, J. W. Calvin, D. L. Halbersleben, and R. M. Sandsuedt.—Aecial Stage of the Orange Leafrust of Wheat, Puccinia triticina Eriks. (G-247.) By H. S. Jackson and E. B. Mains.—A Transmissible Mosaic Disease of Chinese Cabbage, Mustard, and Turnip. (G-248.) By E. S. Schultz. Pp. 115-178, pls. 4, figs. 11. Price, 15 cents.

Note.—Volumes 1 to 4 of the Journal of Agricultural Research were published monthly, volumes 5 to 16 weekly, volume 17 monthly, volumes 18, 19, 20, and 21 semimonthly. Beginning with volume 22, this issue is weekly. The Journal is distributed free only to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. It will not be sent free to individuals. The Superintendent of Documents will receive subscriptions for this publication, the price being 15 cents a single copy, \$3 a year for domestic circulation, and \$4.25 a year for foreign circulation.

Experiment Station Record. Vol. 45, No. 2, August, 1921. E. W. Allen, Ph. D., Editor. Pp. 101-200. Price, 10 cents.

Same, Vol. 45, No. 3. Abstract Number. Pp. 201-300. Oct. 17, 1921. Price, 10 cents.

Same, Vol. 45, No. 4, September, 1921. Pp. 301-400. Price, 10 cents.

NOTE.—The Record is a technical review of the world's scientific literature pertaining to agriculture. It is not intended for general distribution and its free distribution is restricted to persons connected with the agricultural colleges, experiment stations, and similar institutions, and to libraries and exchanges. It can not be sent free to individuals having no official connection with public institutions. The Superintendent of Documents will receive subscriptions for this publication, which is issued in two volumes a year, 10 numbers each, at 75 cents a volume.

The Monthly Crop Reporter. Vol. 7, No. 10, October, 1921. Pp. 121-132. (Bureau of Markets and Crop Estimates.)

Contains data relating to agriculture, including estimates of acreage, conditions, yields, prices, and value of crops and live stock.

ANNOUNCEMENT. Because of the small fund available for printing, it has been found necessary to drop from the mailing list of the Monthly Crop Reporter all names of persons who are not actively cooperating with the United States Department of Agriculture. Persons whose names are dropped may subscribe for this publication, through the Superintendent of Documents, Washington, D. C., at the domestic rate of 25 cents per year, and 40 cents per year to foreign address, payable only by postal money order or cash. No checks accepted.

The Market Reporter. Vol. 4, Nos. 14-18, inclusive, October, 1921. (Bureau of Markets and Crop Estimates.) For free distribution to applicants who show the need for it and give the general nature of their business or occupation in connection with which this publication will be used.

Weekly News Letter.

Contains a weekly summary in popular form of the more important practical discoveries and recommendations of all bureaus of the department. Free list confined to department employees, official cooperators, and the press. May be purchased from the Superintendent of Documents, Government Printing Office, for 50 cents a year.

SOIL SURVEYS.

All requests for soil surveys are referred to the Bureau of Soils for attention, the distribution of same being controlled by that bureau.

Soil Survey of Adair County, Iowa. By Clarence Lounsbury, of the U.S. Department of Agriculture, and T.H. Benton, and P.C. Wiechmann, of the Iowa Agricultural Experiment Station. Pp. 25, fig. 1, map. (From F.O. Soils, 1919.) Price, 15 cents.

Soil Survey of Marshall County, Iowa. By A. H. Meyer, of the U. S. Department of Agriculture, and E. I. Angell, of the Iowa Agricultural Experiment Station. Pp. 35, fig. 1, map. (From F. O. Soils, 1918.)

Soil Survey of Palo Alto County, Iowa. By A. M. O'Neal, jr., and W. E. Tharp, of the United States Department of Agriculture, and F. M. Russell, C. E. Watts, and G. H. Artis, of the Iowa Agricultural Experiment Station. Pp. 36, fig. 1, map. (From F. O. Soils, 1918.) Price, 15 cents.

Soil Survey of Polk County, Iowa. By E. H. Smies, of the U. S. Department of Agriculture, and George E. Corson, and Charles J. Meister, of the Iowa Agricultural Experiment Station. Pp. 67, fig. 1, map. (From F. O. Soils, 1918.) Price, 20 cents.

Soil Survey of Chariton County, Missourl. By W. I. Watkins and C. E. Deardorff, of the U. S. Department of Agriculture, and H. H. Krusekopf and W. De Young, of the University of Missouri. Pp. 34, fig. 1, map. (From F. O. Soils, 1918.) Price, 15 cents.

Soil Survey of Banner County, Nebraska. By F. A. Hayes, of the United States Department of Agriculture, and H. L. Bedell of the Nebraska Soil Survey. Pp. 62, fig. 1, map. (From F. O. Soils, 1918.) Price, 15 cents.

Soil Survey of Bowie County, Texas. By L. L. R. Schoenmann, W. I. Watkins, E. J. Carpenter, William T. Carter, jr., and M. W. Beck, of the U. S. Department of Agriculture, and T. H. Benton, of the Texas Agricultural Experiment Station. Pp. 62, fig. 1, map. (From F. O. Soils, 1918.) Price, 25 cents.

Soil Survey of Freestone County, Texas. By H. W. Hawker and F. A. Hayes and J. F. Stroud and Neal Gearreald, of the Texas Agricultural Experiment Station. Pp. 58, fig. 1, map. (From F. O. Soils, 1919.)

Price, 25 cents.

SERVICE AND REGULATORY ANNOUNCEMENTS—FOR SALE ONLY.

These contain only information, instructions, and notices governing the enforcement of the food and drugs act, meat inspection, 28-hour, and quarantine laws, and the various regulations of the department. Issued monthly by certain bureaus. Free distribution is limited to persons in the employ of the department, to public officials whose duties render it necessary for them to have such information, to journals especially concerned, and to manufacturers and firms whose business is affected by same. Others desiring copies are respectfully referred to the Superintendent of Documents, Government Printing Office, who has them for sale only at prices noted.

Bureau of Animal Industry. No. 173, pp. 87-96. Oct. 20, 1921. Price, 5 cents.

Bureau of Chemistry. Supplement 118. (Notices of Judgments, 9351-9400). Pp. 259-292. Oct. 15, 1921. Price, 10 cents.

Same. Supplement 119. (Notices of Judgments, 9401–9450). Pp. 293–330. Oct. 24, 1921. Price, 10 cents. Same. Supplement 120. (Notices of Judgments, 9451–9500.) Pp. 331–361. Oct. 29, 1921. Price, 10 cents. Insecticide and Fungicide Board. No. 36. Pp. 835–866. Oct. 19, 1921. Price, 5 cents.

Bureau of Markets and Crop Estimates, No. 70. State bureaus of markets, including divisions and other agencies doing marketing work. Pp. 12. October, 1921. Price, 5 cents.

SEPARATES.

Speaking of the Weather. By J. Warren Smith, Weather Bureau. Pp. 23. il. (Separate 838, Year-

book, 1920.) Price, 5 cents.

Killing Boll Weevils With Poison Dust. By B. R. Coad, Bureau of Entomology. Pp. 12, il. (Separate 842, Yearbook, 1920.) Price, 5 cents.

Getting Our Potash. By William H. Ross, Bureau of Soils. Pp. 14, il. (Separate 851, Yearbook, 1920.) Price, 5 cents.

Flowering and Fruiting of Plants as Controlled by the Length of Day. By W. W. Garner and H. A. Allard, Bureau of Plant Industry. Pp. 24, il. (Separate 852, Yearbook, 1920.) Price, 5 cents.

Uses of the Soil Survey. By Charles H. Seaton, Bureau of Soils. (Separate 854, Yearbook, 1920.)

Death to the Rodents. By W. B. Bell, Bureau of Biological Survey. Pp. 18, il. (Separate 855, Yearbook, 1920.) Price, 5 cents.

Putting Wood Waste to Work. By Samuel T. Dana, Forest Service. Pp. 24, il. (Separate 856, Yearbook, 1920.) Price, 5 cents.

The Farmers' Interest in Foreign Markets. By E. G. Montgomery and C. L. Luedtke, Bureau of Markets. Pp. 8, il. (Separate 860, Yearbook, 1920.) Price, 5 cents.

PUBLICATIONS OF THE WEATHER BUREAU.

Publications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

Monthly Weather Review. Vol. 49, No. 7. July, 1921. 379-433, figs. 17, charts 10. Price, 15 cents a copy, \$1.50 a year. Payable to the Superintendent of Documents.

Special Articles: Improved gages for precipitation. ,By S. P. Fergusson.—A warm winter (1920-21) followed by a warm summer. By A. J. Henry.—The earth's wind-belts as factors of climate. By L. W. C. Bonacina.—Climate and vegetation of the high Pamir. By O. Olufsen.—Climate and alfalfa seed. By J. C. Alter.—Concerning a graphical device for pressure reduction. By C. L. Meisinger.—London smoke fogs. By J. S. Owens.—Remarkable aurora of May 14-15, 1921. By H. Lyman.

Same, Vol. 49, No. 8. August, 1921. Pp. 435-479, figs. 26, charts 11. Price, 15 cents a copy, \$1.50 a year. Payable to the Superintendent of Documents.

Special Articles: Excessive Precipitation in Arkansas. By H. S. Cole.—Relation between frequency and intensity of precipitation. By J. W. Alvord.—Sources of two unusual rainfall records. By I. E. Houk.—Early records of tropical hurricanes on the Texas coast in the vicinity of Galveston. By R. D. Frazier.—Systematic corrections to the Calama, Chile, solar constant values. By C. G. Abbot.—Supplemental note on free-air temperature at Drexel and Ellendale during the warm summer of 1921. By A. J. Henry.

National Weather and Crop and Snow and Ice Bulletin. Nos. 40, 41, 42, 43, October, 1921, reporting weather and crop conditions throughout the United States. Issued weekly. Price 25 cents a year. Note.—This bulletin is furnished free of charge to public and educational institutions, libraries, newspapers, cooperative observers, weather correspondents, and to those who will post or display it for the general benefit of the public. To all others the price is 25 cents per year, payable to the Superintendent of Documents, Government Printing Office, Washington, D. C.

JOHN L. COBBS, Jr. Chief, Division of Publications.

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United States Department of Agriculture, MONTHLY LIST OF PUBLICATIONS.

[November, 1921.]

READ CAREFULLY BEFORE ORDERING.

A copy of any of the publications listed herein, except those otherwise noted, may be obtained free upon application to the Chief of the Division of Publications, United States Department of Agriculture, Washington, D. C.,

as long as the department's supply lasts.

After this department's supply is exhausted, publications can still be obtained from the Superintendent of Documents, Government Printing Office,

Washington, D. C., but by purchase only, and at the prices noted herein.

**Send all remittances to the Superintendent of Documents direct. His office is not a part of the Department of Agriculture.

FARMERS' BULLETINS-FOR FREE DISTRIBUTION.

RENOTE.—As long as the department's somewhat limited supply of the current numbers of Farmers' Bulletins lasts they may be obtained by all applicants free of charge. They are also for sale at 5 cents per copy unless otherwise noted.

Sweet Potato Growing. By Fred E. Miller, Assistant Horticulturist, Office of Horticultural and Pomological Investigations. Pp. 31, figs. 22. Contribution from the Bureau of Plant Industry, Revised September, 1921. (Farmers' Bulletin 999.)

Suitable for general distribution.

Cotton Diseases and Their Control. By W. W. Gilbert, Pathologist, Office of Cotton, Truck, and Forage-Crop Disease Investigations. Pp. 32, figs. 18. Contribution from the Bureau of Plant Industry. Revised, October, 1921. (Farmers' Bulletin 1187.)

Of interest to cotton growers in the Southern States.

Measuring and Marketing Farm Timber. By Wilbur R. Mattoon and William B. Barrows, Forest Examiners. Pp. 62, figs. 20. Contribution from the Forest Service. September, 1921. (Farmers' Bulletin 1210.)

Supersedes Farmers' Bulletin 715, and is suitable for general distribution.

Home Canning of Fruits and Vegetables. Pp. 50, figs. 14. Contribution from

the States Relations Service. October, 1921. (Farmers' Bulletin 1211.)

Is intended to replace Farmers' Bulletin 839, "Home Canning by the One Period Cold-Pack Method," and 853, "Home Canning of Fruits and Vegetables," as far as home canning of fruits and vegetables is concerned.

By Ernest Kelly and K. E. Parks, Dairy Division. Farm Dairy Houses. 15, figs. 9. Contribution from the Bureau of Animal Industry. October, 1921. (Farmers' Bulletin 1214.)

Suitable for general distribution.

Beef Production in the Corn Belt. By W. H. Black, Animal Husbandry Division. Pp. 34, figs. 14. Contribution from the Bureau of Animal Industry. November, 1921. (Farmers' Bulletin 1218.)

Supersedes Farmers' Bulletin 588, and discusses the advantages accruing to farmers in the corn belt, from the raising of their own feeders.

Insect and Fungous Enemies of the Grape. By A. L. Quaintance, Entomologist in Charge, Fruit Insect Investigations, and C. L. Shear, Pathologist, Fruit-Disease Investigations. Pp. 75, figs. 79. Contribution from the Bureau of Entomology and Bureau of Plant Industry. November, 1921. (Farmers' Bulletin 1220.) Price, 10 cents.

Suitable for general distribution.

Standard Varieties of Chickens. IV. The Ornamental Breeds and Varieties. By Rob R. Slocum, of the Animal Husbandry Division. Pp. 28, figs. 25. Contribution from the Bureau of Animal Industry. October, 1921. (Farmers'

Describes the Polish, Hamburg, Game, Oriental, Sultan, and Frizzle classes. 78530°-21

Wheat Scab and Its Control. By Aaron G. Johnson and James G. Dickson, Pathologists, Office of Cereal Investigations. Pp. 16, figs. 12. Contribution from the Bureau of Plant Industry. October, 1921. (Farmers' Bulletin 1224.)

For general distribution.

Drying Crude Drugs. By G. A. Russell, Expert, Office of Drug, Poisonous, and Oil Plant Investigations. Pp. 16, figs. 6. Contribution from the Bureau of Plant Industry. November, 1921. (Farmers' Bulletin 1231.)

For general distribution.

Tomatoes for Canning and Manufacturing. By James H. Beattie, Horticulturist, Office of Horticultural and Pomological Investigations. Pp. 20, figs. 7. Contribution from the Bureau of Plant Industry. October, 1921. (Farmers' Bulletin 1233.)

Of interest to commercial growers and canners of tomatoes.

An Improved Method of Making Sugar-Beet Sirup. By C. O. Townsend, Pathologist in Charge, and Sidney F. Sherwood, Chemist, Office of Sugar-Plant Investigations. Pp. 16, figs. 9. Contribution from the Bureau of Plant Industry. November, 1921. (Farmers' Bulletin 1241.)

This bulletin tells how to grow sugar beets in the garden and describes a simple process of making from them a palatable and nutritious table sirup with a pleasant flavor.

DEPARTMENT BULLETINS-TECHNICAL.

ATThe publications listed below are technical or scientific bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts.

The Weighing of Market Hay. By G. A. Collier, Investigator in Hay Marketing, and H. B. McClure, Specialist in Hay Marketing. Pp. 30, figs. 8. Contribution from the Bureau of Markets and Crop Estimates. November 17, 1921. (Department Bulletin 978.) Price, 10 cents.

Of interest to dealers in feeding stuffs and to growers of market hay.

Inspection and Grading of Hay. By H. B. McClure, Specialist in May Marketing, and G. A. Collier, Investigator in Hay Marketing. Pp. 16, figs. 3. Contribution from the Bureau of Markets and Crop Estimates. Nov. 16, 1921. (Department Bulletin 980.) Price, 5 cents.

It is the purpose of this bulletin to describe methods of inspection in vogue to-day, indicate the relative merits of each kind, and give information obtained by a comprehensive study of the subject recently made in the leading hay markets of the country for the benefit of all agencies engaged in the production and marketing of hay.

Market Statistics. Prepared under the direction of Carl J. West, Specialist in Market Statistics, assisted by Lewis B. Flohr, Investigator in Marketing. Pp. 279. Contribution from the Bureau of Markets. June, 1921. (Department Bulletin 982.) Price 30 cents.

These statistics are based primarily upon the data of prices, receipts, shipments, inspections, and other figures of the marketing of agricultural products obtained by the Bureau of Markets in the conduct of its various reporting and regulatory services.

A System of Accounting for Cotton Ginneries. By A. V. Swarthout, Investigator in Market Business Practice, and J. A. Bexell, Formerly Assistant in Market Business Practice. Pp. 42. Contribution from the Bureau of Markets and Crop Estimates. Nov. 9, 1921. (Department Bulletin 985.) Price, 10 cents.

Intended to meet the needs of cotton ginneries generally as they are operated in the cotton belt of the United States.

Handbook of Foreign Agricultural Statistics. Compiled under the Direction of Frank Andrews, Chief, Division of Crop Records. Pp. 69. Contribution from the Bureau of Markets and Crop Estimates. Nov. 9, 1921. (Department Bulletin 987.) Price, 10 cents.

These statistics are compiled from the official Government reports of the respective countries and computed to United States weights and measures.

Walnut Husk-Maggot. By Fred E. Brooks, Entomologist, Fruit Insect Investigations. Pp. 8, pls. 4. Contribution from the Bureau of Entomology. Nov. 4, 1921. (Department Bulletin 992.) Price, 5 cents.

Describes the life history and habits of an insect that is injurious to the black walnut, the butternut, and to the English or Persian walnut, and suggests methods of control.

Methods of Conducting Cost of Production and Farm Organization Studies. By F. W. Peck, Farm Economist. Pp. 47, figs. 8. Contribution from the Office of Farm Management and Farm Economics. Nov. 15, 1921. (Department Bulletin 994.) Price, 5 cents.

Accounting Records for Sampling Apples by Weight. By J. H. Conn, Assistant in Market Business Practice, and A. V. Swarthout, Investigator in Market Business Practice. Pp. 13. Contribution from the Bureau of Markets and Crop Estimates. Nov. 12, 1921. (Department Bulletin 1006.) Price, 5 cents.

Of interest to commercial growers and shippers of apples.

Rate of Multiplication of the Hessian Fly. By W. R. McConnell, Entomological Assistant, Cereal and Forage Insect Investigations. Pp. 8. Contribution from the Bureau of Entomology. (Professional Paper.) Nov. 15, 1921. (Department Bulletin 1008.) Price, 5 cents.

A technical discussion of the subject, and of interest to entomologists generally.

MISCELLANEOUS.

A Biological Survey of Alabama. I. Physiography and Life Zones. II. The Mammals. By Arthur H. Howell, Assistant Biologist, Biological Survey. Pp. 88, pls. 11, figs. 10. Oct. 28, 1921. (North American Fauna No. 45.) Price, 25 cents.

Mosquito Survey of Mayaguez. By W. V. Tower, Entomologist. Pp. 8, pls. 4. November 2, 1921. (Circular 20, Perto Rico Agricultural Experiment Station.) Price, 5 cents.

No copies available for distribution by the department.

State Laws and Court Decisions Relating to Cattle-Tick Eradication. Compiled by Harry Goding, Administrative Assistant. Pp. 71. Contribution from the Bureau of Animal Industry. November, 1921. (Department Circular 184.) Price, 5 cents.

Improvements in Cotton Production. By O. F. Cook, Bionomist in Charge. Pp. 12. Contribution from the Bureau of Plant Industry. November, 1921. (Department Circular 200.) Price, 5 cents.

SERIALS.

Journal of Agricultural Research. (For sale only.) Vol. 22, No. 4. Oct. 22, 1921. Contents: Flora of Corn Meal. (E-16.) By Charles Thom and Edwin LeFevre.—Hopkins Host-Selection Principle as Related to Certain Cerambycid Beetles. (K-162.) By F. C. Craighead.—Notes on the Organic Acids of Pyrus coronaria, Rhus glabra, and Acer saccharum. (G-249.) By Charles E. Sando and H. H. Bartlett.—Fertility in Shropshire Sheep. (I11. -11.) By Elmer Roberts. Pp. 179-234. Price, 15 cents.

Same. Vol. 22, No. 5. Oct. 29, 1921. Contents: Relation of Soil Temperature and Other Factors to Onion Smut Infection. (G-250.) By J. C. Walker and L. R. Jones.—A Physiological Study of Grapefruit Ripening and Storage. (G-251.) By Lon A. Hawkins.—Absorption of Copper from the Soil by Potato Plants. (E-17.) By F. C. Cook. Pp. 235-287, pls. 2. Price, 15 cents.

REPROTE.—Volumes 1 to 4 of the Journal of Agricultural Research were published monthly, volumes 5 to 16 weekly, volume 17 monthly, volumes 18, 19, 20, and 21 semi-monthly. Beginning with volume 22, this issue is weekly.—The Journal distributed free only to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. It will not be sent free to individuals. The Superintendent of Documents will receive subscriptions for this publication, the price being 15 cents a single copy, \$3 a year for domestic circulation, and \$4.25 a year for foreign circulation.

Experiment Station Record. Vol. 43, Index Number. Pp. xxiv, 901–1005, Nov. 5, 1921. Price, 10 cents.

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The Monthly Crop Reporter. Vol. 7, No. 11, November, 1921. Pp. 133-144. (Bureau of Markets and Crop Estimates.)

Contains data relating to agriculture, including estimates of acreage, conditions, yields, prices, and value of crops and live stock.

The Market Reporter. Vol. 4, Nos. 19–22, inclusive, November, 1921. (Bureau of Markets and Crop Estimates.) For free distribution to applicants who show the need for it and give the general nature of their business or occupation in connection with which this publication will be used.

Weekly News Letter. Contains a weekly summary in popular form of the more important practical discoveries and recommendations of all bureaus of the department. Free list confined to department employees, official cooperators, and the press. May be purchased from the Superintendent of Documents, Government Printing Office, for 50 cents a year.

The Weekly News Letter will be discontinued January 1, 1922.

SOIL SURVEYS.

ATAIl requests for soil surveys are referred to the Bureau of Soils for attention, the distribution of same being controlled by that bureau.

- Reconnoissance Soil Survey of the Central Southern Area, California. By J. E. Dunn, L. C. Holmes, and A. T. Strahorn of the U. S. Department of Agriculture, and J. E. Guernsey of the University of California. Pp. 136, pls. 5, fig. 1, maps, 2. (From F. O. Soils, 1917.) Price, 75 cents.
- Soil Survey of Winnebago County, Iowa. By W. E. Tharp, of the U. S. Department of Agriculture, and G. H. Artis, of the Iowa Agricultural Experiment Station. Pp. 31, fig. 1, map. (From F. O. Soils, 1918.) Price, 15 cents.
- Soil Survey of Reynolds County, Missouri. By H. H. Krusekopf and W. De Young, of the University of Missouri, and W. I. Watkins and C. E. Deardorff, of the U. S. Department of Agriculture. Pp. 30, pls. 3, fig. 1, map. (From F. O. Soils, 1918.) Price, 15 cents.

SERVICE AND REGULATORY ANNOUNCEMENTS-FOR SALE ONLY.

These contain *only* information, instructions, and notices governing the enforcement of the food and drugs act, meat inspection, 28-hour, and quarantine laws, and the various regulations of the department. Issued monthly by certain bureaus. *Free distribution* is limited to persons in the employ of the department, to public officials whose duties render it necessary for them to have such information, to journals especially concerned, and to manufacturers and firms whose business is affected by same. Others desiring copies are respectfully referred to the Superintendent of Documents, Government Printing Office, who has them for sale *only* at prices noted.

Bureau of Animal Industry. No. 174. October, 1921. Pp. 97-107. Nov. 26, 1921. Price, 5 cents.

Bureau of Chemistry, Supplement 121. (N. J. 9501-9550.) Pp. 363-397. Nov. 24, 1921. Price, 10 cents.

Insecticide and Fungicide Board. No. 37. Notices of Judgments 676-700. Pp. 867-887. Nov. 2, 1921. Price, 5 cents.

Bureau of Markets and Crop Estimates. No. 69. Suggestions for an Ordinance to Establish, Locate, Regulate, and Maintain a Public Farmers' Market, and for Other Purposes. Pp. 14. November, 1921. Price, 5 cents.

Same. Index to Nos. 1-50. 1921. Pp. 14. Price, 5 cents.

PUBLICATIONS OF THE WEATHER BUREAU.

Publications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

National Weather and Crop and Snow and Ice Bulletin. Nos. 44-48, November, 1921, reporting weather and crop conditions throughout the United States. Issued weekly. Price, 25 cents a year.

Note.—This bulletin is furnished free of charge to public and educational institutions, libraries, newspapers, cooperative observers, weather correspondents, and to those who will post or display it for the general benefit of the public. To all others the price is 25 cents per year, payable to the Superintendent of Documents, Government Printing Office, Washington, D. C.

JOHN L. COBBS, Jr., Chief, Division of Publications.

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United States Department of Agriculture, MONTHLY LIST OF PUBLICATIONS.

[DECEMBER, 1921.]

READ CAREFULLY BEFORE ORDERING.

Send no remittances to the U.S. Department of Agriculture.

A copy of any of the publications listed herein, except those otherwise noted, may be obtained free upon application to the Chief of the Division of Publications, United States Department of Agriculture, Washington, D. C., as long as the department's supply lasts.

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Send all remittances to the Superintendent of Documents direct. His office is not a part of the Department of Agriculture.

FARMERS' BULLETINS-FOR FREE DISTRIBUTION.

RENOTE.—As long as the department's somewhat limited supply of the current numbers of Farmers' Bulletins lasts they may be obtained by all applicants free of charge. They are also for sale at 5 cents per copy unless otherwise noted.

- Poultry Management. By G. Arthur Bell, Animal Husbandry Division. Pp. 39, figs. 10. Contribution from the Bureau of Animal Industry. Revised, December, 1921. (Farmers' Bulletin 287.)
- The Production of Cigar-Leaf Tobacco in Pennsylvania. By William Frear, Vice Director and Chemist of the Pennsylvania Agricultural Experiment Station, and E. K. Hibshman, formerly Collaborator of the Office of Tobacco Investigations, Bureau of Plant Industry. Revised, November, 1921. (Farmers' Bulletin 416.)
- Breeds of Beef Cattle. By E. W. Sheets, Animal Husbandry Division. Pp. 31, figs. 20. Contribution from the Bureau of Animal Industry. Revised, November, 1921. (Farmers' Bulletin 612.)
- How to Attract Birds in Northeastern United States. By W. L. McAtee, Assistant Biologist. Pp. 16, figs. 11. Contribution from the Bureau of Biological Survey. Second Revision, November, 1921. (Farmers' Bulletin 621.)

 Suitable for distribution in Pennsylvania, New Jersey, New York, and the New England States.
- Castration of Young Pigs. By Frank G. Ashbrook, Junior Animal Husbandman, Animal Husbandry Division. Pp. 7, figs. 6. Contribution from the Bureau of Animal Industry. Revised, November, 1921. (Farmers' Bulletin 780.)
- Breeds of Light Horses. By H. R. Reese, Animal Husbandry Division. Pp. 16, figs. 9. Contribution from the Bureau of Animal Industry. Revised, December, 1921. (Farmers' Bulletin 952.)
- The Angora Goat. By G. P. Williams, Animal Husbandry Division. Pp. 26, figs. 12. Contribution from the Bureau of Animal Industry. December, 1921. (Farmers' Bulletin 1203.)

 Supersedes Farmers' Bulletin 573, and is suitable for general distribution.
- A Week's Food for an Average Family. By Caroline L. Hunt, Specialist, Office of Home Economics. Pp. 27, figs. 5. Contribution from the States Relations Service. December, 1921. (Farmers' Bulletin 1228.)

 This bulletin shows by means of pictures a sample weekly food supply for the average family so planned that it may be used as a guide in the selection of foods for any family at any season of the year and under any market conditions.
- Chimneys and Fireplaces: How to Build Them. By A. M. Daniels, Assistant Mechanical Engineer, Division of Agricultural Engineering. Pp. 28, figs. 22. Contribution from the Bureau of Public Roads. December, 1921. (Farmers' Bulletin 1230.)

- Pineapple Culture in Florida. By E. D. Vosbury, formerly Scientific Assistant, Office of Horticultural and Pomological Investigations, and J. R. Winston, Pathologist, Office of Fruit-Disease Investigations. Pp. 35, figs. 31. Contribution from the Bureau of Plant Industry. November, 1921. (Farmers' Bulletin 1237.)
- Community Bird Refuges. By W. L. McAtee, Assistant in Charge, Food Habits Research. Pp. 13, figs. 3.—Contribution from the Bureau of Biological Survey. December, 1921. (Farmers' Bulletin 1239.)

DEPARTMENT BULLETINS-TECHNICAL.

- The publications listed below are technical or scientific bulletins applying to a special industry or locality. The edition is limited, but they will be furnished free to persons who can use such specialized information as long as the supply lasts.
- heritance of Ramose Inflorescence in Maize. By J. H. Kempton, Assistant in Crop Acclimatization. Pp. 20, pls. 14, figs. 6. Contribution from the Bureau of Plant Industry. (Professional Paper.) Dec. 3, 1921. (Department Bulletin 971.) Price, 20 cents. Inheritance of Ramose Inflorescence in Maize.
- Food Values: How Foods Meet Body Needs. By Emma A. Winslow, Secretary, Committee on Home Economics, New York Charity Organization Society, and Lecturer, Teachers' College, Columbia University. Pp. 37, charts 50. Contribution from the States Relations Service. Dec. 30, 1921. (Department Bulletin 975.) Price, 10 cents.

 This bulletin contains 50 charts showing what proportions the five important constituents—i. e., fuel, protein, calcium, phosphorus, and iron—are supplied in 50 common foods.

- Sudan Grass and Related Plants. By H. N. Vinall, Agronomist, and R. E. Getty, Assistant Agrostologist, Office of Forage-Crop Investigations. Pp. 68, figs. 25. Contribution from the Bureau of Plant Industry. (Professional Paper.) Dec. 21. (Department Bulletin 981.) Price, 15 cents.
- The National Influence of a Single Farm Community. A Story of the Flow into National Life of Migration from the Farms. By Emily F. Hoag, Assistant Economist. Pp. 55, pls. 13, figs. 23. Contribution from the Office of Farm Management and Farm Economics. Dec. 1, 1921. (Department Bulletin 984.) Price, 20 cents.
- Studies on the Biology and Control of Chiggers. By H. E. Ewing, Specialist in Mites. Pp. 19, figs. 4. Contribution from the Bureau of Entomology. Dec. 3, 1921. (Department Bulletin 986.) Price, 5 cents.
- Heat Production of Honeybees in Winter. By R. D. Milner, formerly Assistant Chief of the Office of Home Economics, States Relations Service, and Geo. S. Demuth, formerly Apicultural Assistant, Bureau of Entomology. Pp. 18, charts 4. Contribution from the States Relations Service. (Professional Paper.) Dec. 5, 1921. (Department Bulletin 988.) Price, 5 cents.
- The Cost and Utilization of Power on Farms Where Tractors Are Owned. By H. R. Tolley, Agricultural Engineer, and L. A. Reynoldson, Junior Farm Economist. Pp. 61, figs. 13. Joint Contribution from the Office of Farm Management and Farm Economics, Bureau of Public Roads, and Bureau of Animal Industry. Dec. 21, 1921. (Department Bulletin 997.) Price, 10 cents.
- Open Types of Public Markets. By McFall Kerbey, Formerly in Charge of City Marketing Investigations. Pp. 18, figs. 4. Contribution from the Bureau of Markets and Crop Estimates. Dec. 23, 1921. (Department Bulletin 1002.) Price, 5 cents.
- The Distillation of Stumpwood and Logging Waste of Western Yellow Pine. By M. G. Donk, Assistant Chemist. Leather and Paper Laboratory, Bureau of Chemistry: C. H. Shattuck, Professor of Forestry; and W. D. Marshall, Research Fellow, Forestry Department, University of Idaho. Pp. 69, figs. 8. Contribution from the Bureau of Chemistry and the University of Idaho. Dec. 5, 1921. (Department Bulletin 1003.) Price, 15 cents.
- Volume Variation of Bottled Foods.

 Junior Chemist. Pp. 20, figs. 2.
 fessional Paper.) Dec. 16, 1921. (Department Bulletin 1009.) Price, 5 cents.
- The Influence of Relative Humidity and Moisture Content of Wheat on Milling Yields and Moisture Content of Flour. By J. H. Shollenberger, Grain Supervisor, in Charge Milling Investigations. Pp. 12, figs. 6. Contribution from the Bureau of Markets and Crop Estimates. (Professional Paper.) Dec. 22, 1921. (Department Bulletin 1013.) Price, 5 cents.

MISCELLANEOUS.

- Work and Expenditures of the Agricultural Experiment Stations, 1919. Pp. 94. December, 1921. Prepared by the Office of Experiment Stations, States Relations Service. Price, 10 cents.
- Report of the Guam Agricultural Experiment Station, 1920. Pp. 79, pls. 8. Nov. 21, 1921. Price, 10 cents.
- Para and Paspalum: Two Introduced Grasses of Guam. By Glen Briggs, Agronomist. Pp. 44, pls. 6. Dec. 2, 1921. (Bulletin 1, Guam Agricultural Experiment Station.) Price, 10 cents.
- Report of the Hawaii Agricultural Experiment Station, 1920. Pp. 72, pls. 10. Dec. 16, 1921. Price, 10 cents.
- The Pigeon Pea (Cajanus indicus): Its Culture and Utilization in Hawaii. Krauss, Superintendent of Extension Division. Pp. 23, pls. 5, fig. 1. Dec (Bulletin 46, Hawaii Agricultural Experiment Station.) Price, 10 cents. By F. Dec. 16, 1921.

- The Coffee Leaf Spot (Stibella flavida) in Porto Rico. By T. B. McClelland. Horticulturist. Pp. 12, pls. 4. Dec. 14, 1921. (Bulletin 28, Porto Rico Agricultural Experiment Station.) Price, 5 cents.
- Progress of Barberry Eradication. By F. E. Kempton, Pathologist in Charge of the Barberry-Eradication Campaign, Office of Cereal Investigations. Pp. 37, figs. 4. Contribution from the Bureau of Plant Industry. October, 1921. (Department Circular 188.) Price, 10 cents.
- Extension Work Among Negroes, 1920. By W. B. Mercier, Assistant Chief, Office of Extension Work in the South. Pp. 24, figs. 10. Contribution from the States Relations Service. [November, 1921.] (Department Circular 190.) Price, 5 cents.
- Status and Results of Boys' and Girls' Club Work, Northern and Western States, 1920. By George E. Farrell, In Charge of Boys' and Girls' Club Work. Pp. 36, figs. 10. Contribution from the States Relations Service. December, 1921. (Department Circular 192.) Price, 10 cents.
- The Credit Association as an Agency for Rural Short-Time Credit. By V. N. Valgren, Associate Agricultural Economist, and Elmer E. Engelbert, Junior Economist in Farm Finance. Pp. 24, figs. 3. Contribution from the Office of Farm Management and Farm Economics. November, 1921. (Department Circular 197.) Price, 5 cents.
- Government Forest Work in Utah. By R. H. Rutledge, District Forester, Ogden, Utah. Pp. 31. Contribution from the Forest Service. November, 1921. (Department Circular 198.) Price, 5 cents. Price, 5 cents.
- Breeding Morgan Horses at the United States Morgan Horse Farm. By H. H. Reese, Animal Husbandry Division. Pp. 18, figs. 13. Contribution from the Bureau of Animal Industry. November, 1921. (Department Circular 199.) Price, 10 cents.
- Eradication of the Sweet-Potato Weevil in Florida. By J. E. Graf and B. L. Boyden, Truck-Crop Insect Investigations. Pp. 13, figs. 2. Contribution from the Bureau of Entomology. Nov. 23, 1921. (Department Circular 201.) Price, 5 cents.
- The Work of the Huntley Reclamation Project Experiment Farm in 1920. By Dan Hansen, Farm Superintendent. Pp. 31, figs. 2. Contribution from the Bureau of Plant Industry. December, 1921. (Department Circular 204.) Price, 5 cents.

SERIALS.

- Journal of Agricultural Research. (For sale only.) Vol. 22, No. 6, Nov. 5, 1921. Contents: Pale Western Cutworm (Porosagrotis orthogonia Morr.). (Mont.-8.) By J. R. Parker, A. L. Strand, and H. L. Seamans.—Biology of Embaphion muricatum. (K-103.) By J. S. Wade and Adam H. B. Boving. Pp. 289-334, pls. 6. Price, 15 cents.
- Ame. Vol. 22, No. 7. Nov. 12, 1921. Contents: Genetic Behavior of the Spelt Form in Crosses between Triticum spelta and Triticum sativum. (G-252.) By Clyde E. Leighty and Sarkis Boshnakian.—Plum Blotch, a Disease of the Japanese Plum Caused by Phyllosticta congesta Heald and Wolf. (G-253.) By John W. Roberts.—A Comparison of the Pectinase Produced by Different Species of Rhizopus. (G-254.) By L. L. Harter and J. L. Weimer. Pp. 335-377, pls. 3, figs. 5. Price, 15 cents.
- Same. Vol. 22, No. 8. Nov. 19, 1921. Contents: Hemotoxins from Parasitic Worms. (A-62.) By Bejamin Schwartz.—Ash Content of the Awn. Rachis, Palea, and Kernel of Barley during Growth and Maturation. (G-255.) By Harry V. Harlan and Merritt N. Pope. Pp. 379-449, figs. 5. Price, 15 cents.
- me. Vol. 19, No. 12. Se 593-600. Price, 15 cents. Sept. 15, 1921. Contents and Index to Volume 19, Pp. xiv,
 - MENOTE.—Volumes 1 to 4 of the Journal of Agricultural Research were published monthly, volumes 5 to 16 weekly, volume 17 monthly, volumes 18, 19, 20, and 21 semi-monthly. Beginning with volume 22, this issue is weekly. The Journal distributed free only to the libraries of agricultural colleges and experiment stations, to large universities, technical schools, and such institutions as make suitable exchanges with the department. It will not be sent free to individuals. The Superintendent of Documents will receive subscriptions for this publication, the price being 15 cents a single copy, \$3 a year for domestic circulation, and \$4.25 a year for foreign circulation.
- Experiment Station Record. Vol. 45, No. 5. October, 1921. Pp. 401-500. Price, 10 cents.
- Vol. 45, No. 6. Abstract Number. Nov. 30, 1921. Pp. 501-600. Price, 10 cents.
- me. Vol. 45, No. 7. November, 1921. Pp. 601-700. Price, 10 cents.

 RNOTE.—The Record is a technical review of the world's scientific literature pertaining to agriculture. It is not intended for general distribution and its free distribution is restricted to persons connected with the agricultural colleges, experiment stations, and similar institutions, and to libraries and exchanges. It can not be sent free to individuals having no official connection with public institutions. The Superintendent of Documents will receive subscriptions for this publication, which is issued in two volumes a year, 10 numbers each, at 75 cents a volume. Foreign subscription, \$1.25 a volume volume.
- The Market Reporter. Vol. 4, Nos. 23 and 24. December, 1921. (Bureau of Markets and Crop Estimates.) For free distribution to applicants who show the need for it and give the general nature of their business or occupation in connection with which this publication will be used.
- reekly News Letter. Contains a weekly summary in popular form of the more important practical discoveries and recommendations of all bureaus of the department. Free list confined to department employees, official cooperators, and the press. May be purchased from the Superintendent of Documents, Government Printing Office, for 50 cents Weekly News Letter. a year.
 - The Weekly News Letter will be discontinued Dec. 14, 1921.

SOIL SURVEYS.

AFAll requests for soil surveys are referred to the Bureau of Soils for attention, the distribution of same being controlled by that bureau.

Soil Survey of Madison County, Iowa. By T. H. Benton, of the Iowa Agricultural Experiment Station, and Hugh B. Woodroffe, of the U. S. Department of Agriculture. Pp. 40, fig. 1, map. (From F. O. Soils, 1918.) Price, 15 cents.

Soil Survey of Simpson County, Mississippi. By F. Z. Hutton, W. E. Tharp, and Clarence Lounsbury. Pp. 34, fig. 1, map. (From F. O. Soils, 1919.) Price, 15 cents.

PUBLICATIONS OF THE WEATHER BUREAU.

Publications of the Weather Bureau are obtainable only from the Chief of the Weather Bureau or the Superintendent of Documents, Government Printing Office, at the prices noted herein.

Monthly Weather Review. Vol. 49, No. 9. September, 1921. [December, 1921.] Pp. 481-536, figs. 25, charts 16. Price, 15 cents a copy, \$1.50 a year, payable to the Superintendent of Documents.

Special Articles: Sky brightness and daylight illumination measurements. By H. H. Kimball and I. R. Hand.—Note on methods for indicating and measuring correlation, with examples. By H. W. Clough.—The Texas floods of September, 1921.—Wind velocity and rain frequency on the south Texas coast. By I. R. Tannehill.—Do the Great Lakes diminish rainfall in the crop-growing season? By C. E. Eshleman.—A simple filling apparatus for definite inflation of pilot balloons. By R. C. Lane.—History of the theories of the winds from the earliest times to the beginning of the seventeenth century. By E. W. Woolard.

Note.—The Monthly Weather Review is sent free to cooperating meteorological serv.

Note.—The Monthly Weather Review is sent free to cooperating meteorological services, universities and other institutions of learning which offer a course of instruction in meteorology, and to a limited number of individuals and students of the subject who may be interested in the advancement of the science of meteorology.

National Weather and Crop and Snow and Ice Bulletin. No. 49 weather and crop conditions throughout the United States. No. 49, December, 1921, reporting

This publication has been discontinued. The information formerly contained in it will, in the future, be published in Weather, Crops, and Markets.

JOHN L. COBBS, Jr., Chief, Division of Publications.